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THIRD QUARTERLY DATA REPORT FOR THE TERRESTRIAL BASELINE DATA ACCUMULATION PROGRAM RIO BLANCO OIL SHALE PROJECT

submitted to

RIO BLANCO OIL SHALE PROJECT
Denver, Colorado

from

ECOLOGY CONSULTANTS, INCORPORATED
Fort Collins, Colorado

June, 1975

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EXECUTIVE SUMMARY

Ecology Consultants, Incorporated has been contracted to perform a Terrestrial Baseline Data Accumulation Program for RBOSP on Tract C-a. Communication of the scope and results of that program will be accomplished in a series of quarterly reports. This third report of that series contains details of revised methodology (wherever relevant), summarized results, and preliminary interpretations for those terrestrial programs conducted during the quarter March through May, 1975. Future quarterly reports will include an update of the developing data base for each subsequent quarter as well as any approved program modifications. Definitive interpretations and a synthesis of program results will be developed in the Second Annual Report which is due in December, 1975.

INTRODUCTION

This report presents and summarizes terrestrial baseline data for the Third Quarterly Report on Tract C-a. Its purpose is to transmit information gathered during the period March through May, 1975. Although major revisions of the terrestrial program were approved in mid-May, 1975, a detailed description for new field methodology is included only for those elements of the revised terrestrial program (such as small mammal censusing) which were completed prior to May 31, 1975. Revised field programs which were completed after May 31, along with their associated raw data and preliminary interpretations will be documented in the September Quarterly Report. In this report, data gathered during the March through May, 1975, sampling period are presented and summarized, and some preliminary interpretations are made. The raw data are organized in appendices which appear as separate sub-sections under each of the major categories of investigation. For example, small mammal raw data are appended as the last sub-section under "Small Mammals."

Because few definitive ecological trends are identifiable from the data obtained in just one quarter, complete statistical analyses and interpretations of results cannot be included. Significant facts, trends, or comparisons evident from the summarized data will be presented, but possible interpretations of their ecological significance are regarded as only tentative, subject to revision in future quarterly reports on the basis of new information contained therein.

2.3.1 Vegetation

2.3.1.1 Introduction

No change has occurred since Progress Report-2. See section 3.2.1 in Progress Report-2 for the introduction to the vegetation section.

2.3.1.2 Methods

No change has occurred since Progress Report-2. See section 3.2.2 in Progress Report-2 for specific methods used in vegetation studies.

2.3.1.3 Results

Vegetation data were not gathered during the reporting quarter March through May, 1975.

2.3.1.4 Soils

2.3.1.4.1 Introduction

No change has occurred since Progress Report-2. See section 3.1.1 in Progress Report-2 for the introduction to the soils section.

2.3.1.4.2 Methods

No change has occurred since Progress Report-2. See section 3.1.2 in Progress Report-2 for specific methods used in soils studies.

2.3.1.4.3 Results

Soils data were not gathered during the reporting quarter March through May, 1975.

2.3.2 Grazing Exclosures

2.3.2.1 Introduction

No change has occurred since Progress Report-2. See section 3.3.1 in Progress Report-2 for the introduction to the grazing exclosure section.

2.3.2.2 Methods

No change has occurred since Progress Report-2. See section 3.3.2 in Progress Report-2 for specific methods used in grazing exclosure studies.

2.3.2.3 Results

Grazing exclosure data were not gathered during the reporting quarter March through May, 1975.

2.3.3--Small Mammals

2.3.3 Small Mammals

2.3.3.1 Introduction

No change has occurred since Progress Report-2. See section 3.5.1 in Progress Report-2 for the introduction to the small mammal section.

2.3.3.2 Methods

2.3.3.2.1 Live Trapping

A live trapping program, consisting of 9 trapping periods during the 2-year baseline inventory, was initiated during October, 1974. To coincide with periods of increased small mammal activity and to provide adequate data on reproduction and other population parameters, sampling is being conducted during October 1974, May, July and September, 1975 and during May, July, and September, 1976. Trapping will also occur during December, 1974 and 1975 to provide information on small mammal winter activity patterns. Within and adjacent to Tract C-a five 7.29 ha (18 A) grids are established to sample small mammal activity within the major vegetation associations (i.e., pinyon-juniper on north and south facing slopes, sagebrush, greasewood-sagebrush and mixed brush). Each grid has dimensions of 270 m x 270 m and consists of 133 stations, permanently marked with numbered stakes and flagging. The center of each grid consists of 49 stations, in a 7 x 7 pattern, spaced at intervals of 15 m. The remaining 84 stations, forming the boundaries of the grid, are spaced 30 m apart (Figure 2.3-1). This grid size and pattern is designed to aid in estimating population densities and home ranges for both the smaller rodents (mice and voles) and the larger, wider ranging chipmunks and most ground squirrels.

Seven, 0.81 ha (2 A) grids and two, 1.35 ha (3.3 A) grids are also used in the trapping program. These grids are designed to evaluate the range of small mammal population variation in major vegetation types not represented on the tract (such as Douglas fir), variation of small mammal populations in major vegetation types sampled by the 7.29 ha grid, and small mammals in edge habitats (habitats created by the juxtaposition of distinctly different vegetation types).

To provide a basis for comparison of population data from different sized grids, the 0.81 ha grids consist of 33 permanently marked stations in the same configuration as 3 lines of stations through the center of the larger grid (Figure 2.3-2). As the Aspen and Douglas fir communities contain species of voles not generally found in other vegetation types in the area, four rows of seven stations each are added to the center of the 0.81 ha grids established in these communities (Figure 2.3-3). The resulting 1.35 ha grids will provide more accurate population density and home range estimations for the voles. The types of vegetation sampled by the different grids are listed in Table 2.3-1 and grid locations are shown in Figure 2.3-4.

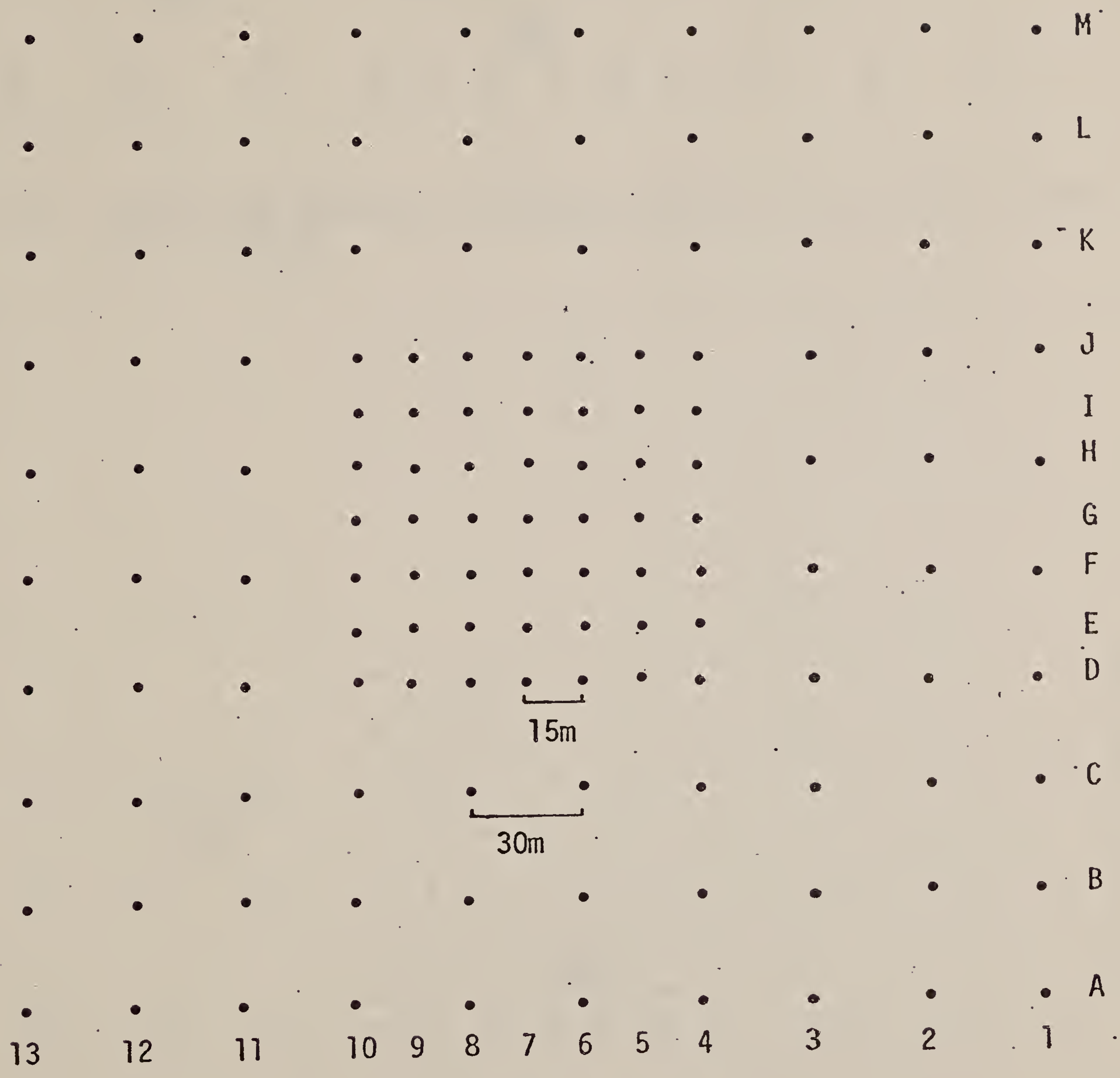


Figure 2.3-1. Pattern and spacing of trapping stations for the 7.29 ha grids used for RBOSP.

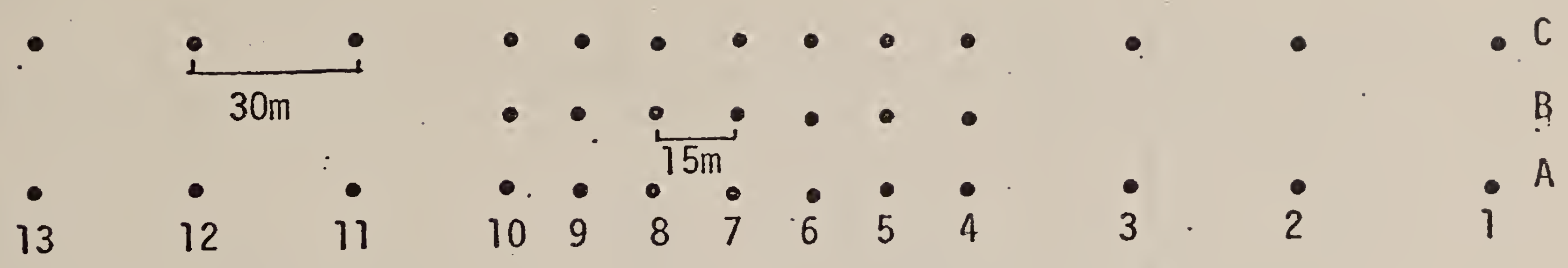


Figure 2.3-2. Pattern and spacing of trapping stations for the 0.81 ha grids used for RBOSP.

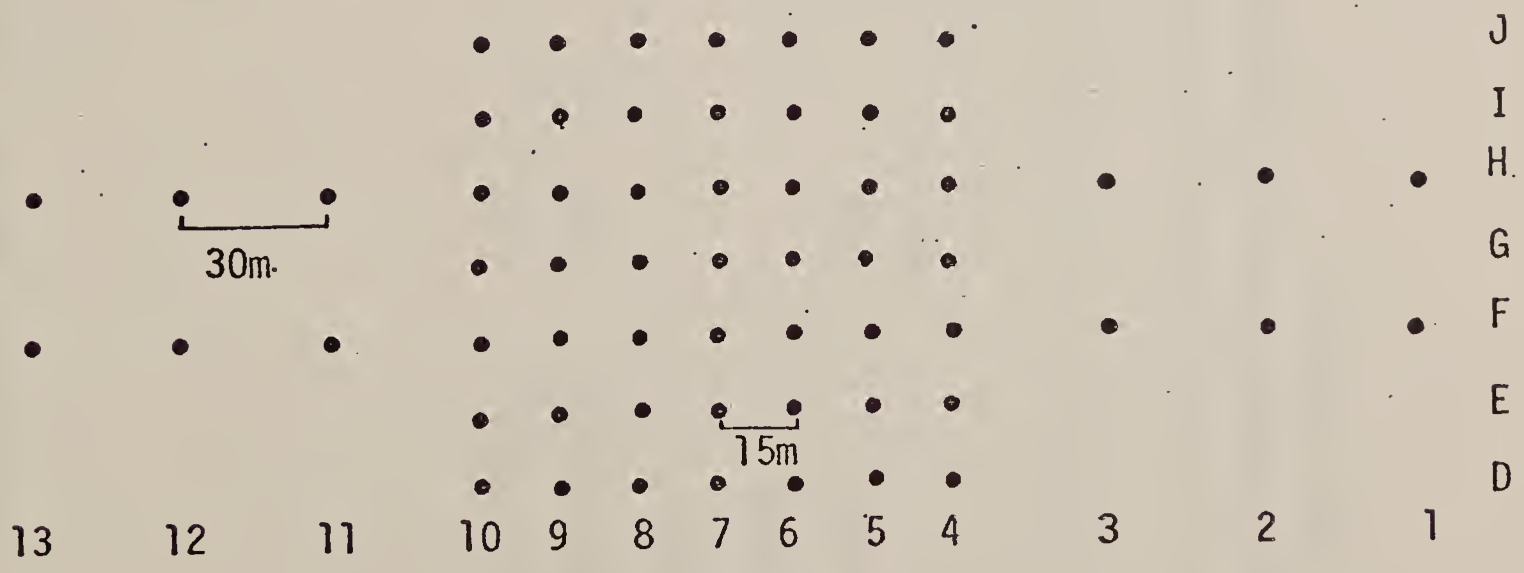
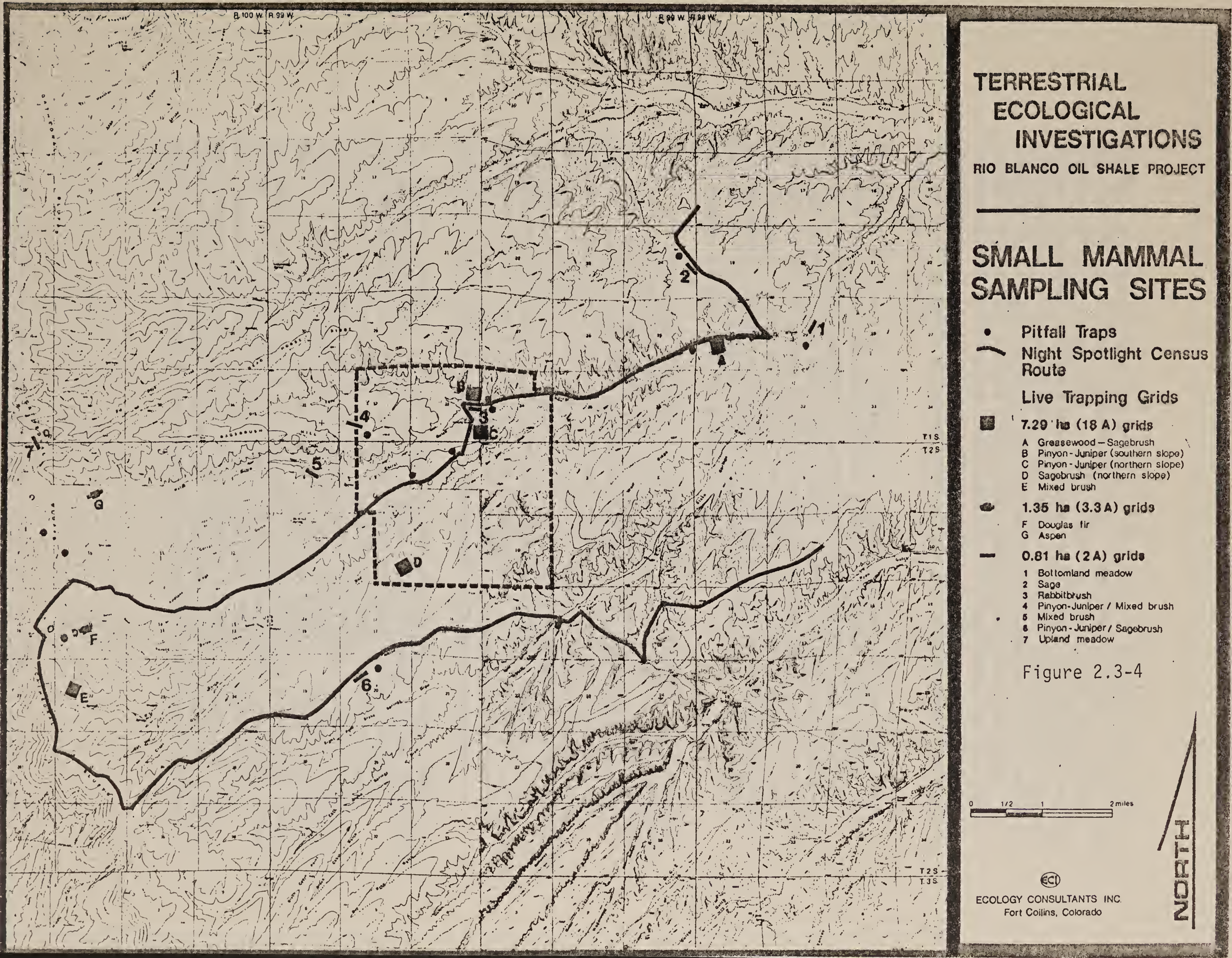


Figure 2.3-3. Pattern and spacing of trapping stations for the 1.35 ha grids used for RBOSP.

Table 2.3-1. Sizes and distribution of small mammal live trapping grids within vegetation types on and near Tract C-a for RBOSP

Vegetation Community	7.29 Hectare Grids		0.81 Hectare Grids		1.35 Hectare Grids	
	On Tract	Off Tract	On Tract	Off Tract	On Tract	Off Tract
Aspen						1(G)
Douglas fir						1(F)
Mixed brush		1(E)		1(5)		
Upland meadow				1(7)		
Bottomland meadow				1(1)		
Pinyon-juniper (southern slope)	1(B) [1]					
Pinyon-juniper (northern slope)	1(C)					
Pinyon-juniper/sagebrush				1(6) [2]		
Pinyon-juniper/mixed brush			1(4) [2]			
Sagebrush (northern slope)	1(D)					
Sagebrush (flat)				1(2)		
Greasewood/sagebrush		1(A)				
Rabbitbrush			1(3)			

1/ Figures in parentheses indicate the grid designation as shown in Figure 2.3-4.
2/ Grid established in edge habitat.



TERRESTRIAL ECOLOGICAL INVESTIGATIONS
RIO BLANCO OIL SHALE PROJECT
SMALL MAMMAL SAMPLING SITES
Pitfall Traps
Night Spotlight Census Route
Live Trapping Grids
7.29 ha (18 A) grids
A Greasewood – Sagebrush
B Pinyon-Juniper (southern slope)
C Pinyon-Juniper (northern slope)
D Sagebrush (northern slope)
E Mixed brush
1.35 ha (3.3 A) grids
F Douglas fir
G Aspen
0.81 ha (2 A) grids
1 Bottomland meadow
2 Sage
3 Rabbitbrush
4 Pinyon-Juniper / Mixed brush
5 Mixed brush
6 Pinyon-Juniper / Sagebrush
7 Upland meadow
0 1/2 1 2 miles
NORTH
ECOLOGY CONSULTANTS INC.
Fort Collins, Colorado
R 100 W. R 99 W.
R 99 W. R 98 W.
T1S
T2S
T2S
T3S

Figure 2.3-4

At each station of all the grids a 3" x 3" x 10" Sherman live trap is set during the spring, summer, and fall sampling periods. Since small mammal activity is greatly curtailed during the winter season, and because repeated captures of the same individuals during cold weather will produce an unacceptably high number of trap deaths due to hypothermia, an extensive trapping program during December 1974 and 1975 could artificially reduce population numbers and preclude objective interpretation of results. Consequently, during these periods only 33 stations of the 7.29 and 1.35 ha grids, in the same configuration as the 0.81 ha grids (Figure 2.3-2), and all stations of the 0.81 ha grids are operated.

Traps are baited with a mixture of peanut butter, rolled oats and cracked corn, and are checked for five consecutive days during each of the 9 sampling periods. To minimize desiccation and death of trapped animals from the intense solar radiation characteristic of summers in the Piceance Basin, cardboard is positioned over each trap in a Λ shape to provide shade for animals captured during the day. During winter trapping periods, a wad of dacron or cotton batting is placed at the back of each trap for bedding material, to minimize the number of deaths from hypothermia.

Traps are reset and rebaited as necessary. All animals captured are distinctively marked by unique toe-clipping combinations and released. For each animal captured, the species, sex, age class, weight, reproductive status, general physical condition (if other than normal), capture location and animal identification number are recorded on a standard trapping form (Figure 2.3-5). Weights are determined to 1.0 gm accuracy using a Pesola calibrated spring scale. Distinguishing characteristics between all morphologically similar species that might occur in the Piceance Basin have been identified by ECI. Measurements of these characteristics are routinely taken for all species captured whose identification is dependent upon such measures.

At certain times of the year trap success may be very high. When a large proportion of the traps on a grid catch animals during one night, some animals may not have an opportunity to enter trap stations located within their home range. This phenomenon, indicated by a high ratio of new animals to recaptures from previous nights, may yield inadequate population data for some species. To insure adequate data for all species, an increased trapping effort, either more traps per night or more nights of trapping, is necessary. Increasing the number of traps on some grids but not on others would adversely affect the comparability of results from different grids. Therefore, on grids where the ratio of new to recaptured animals is unacceptably high on the last day of the normal 5-day trapping period, the trapping effort will be extended for as many as five days to obtain adequate data.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name________________ Grid ______ Project______ Trap Night________

Date, time traps set________________ Date, time traps checked____________

L[illegible] toe clip # used on previous day________ Field Analyst(s)____________

QA Check____________

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight	Reprod. Status	Additional Notes*

*Key taxonomic characters, physical condition of animal, etc.

Figure 2.3-5. Small mammal live trapping field data sheet used for RBOSP.

2.3.3.2.2 Collection of Animals for Laboratory Analysis

A removal trapping program designed to collect small mammals for laboratory analysis of reproductive effort or stomach contents will occur during each of the small mammal live trapping periods. Animals are being collected for analysis of stomach contents during October and December, 1974; during May, July, September and December, 1975; and during May and July, 1976. Animals are being collected for analysis of reproductive effort during May and July, months of peak small mammal breeding activity, 1975 and 1976. The removal program is conducted sufficiently far from the live trapping grids to prevent interference with the live trapping operations. Ideally, for each of the three most common small mammal species, up to five specimens (including at least two females) are collected by a line of 40 snap traps in the major vegetation types where that species occurs. Trapping effort is increased in those vegetation types where capture success is low. However, if sufficient numbers of animals are not collected after four nights, trapping is terminated. All captured animals are frozen to prevent deterioration of internal organs. Prior to the laboratory analysis of reproductive effort or stomach contents any internal parasites and general internal condition, if other than normal, will be noted. The species which are being collected and the vegetation types being sampled are listed in Table 2.3-2.

2.3.3.2.3 Laboratory Analysis of Reproductive Effort

No change has occurred since Progress Report-2. See section 3.5.2.3 in Progress Report-2 for specific methods used in laboratory analysis of reproductive effort.

2.3.3.2.4 Laboratory Analysis of Stomach Contents

No change has occurred since Progress Report-2. See section 3.5.2.4 in Progress Report-2 for specific methods used in laboratory analysis of stomach contents.

2.3.3.2.5 Collection of Voucher Specimens

No change has occurred since Progress Report-2. See section 3.5.2.5 in Progress Report-2 for specific methods used in the collection of small mammal voucher specimens.

2.3.3.2.6 Pitfall Trapping

Pitfall traps for trap-shy animals and for animals not attracted to peanut butter bait are established in each of the vegetation communities sampled by the live trapping grids and in the riparian habitat beside the pond in Stake Springs Draw (Figure 2.3-4). The trap system consists of three plastic buckets, approximately the size of number 10 cans, placed in the ground open end up, flush with the ground surface and in a straight line. A 1-foot high drift fence (wire window screen)

Table 2.3-2. Maximum number of individuals of the three most common species collected for laboratory analysis of reproductive effort and stomach contents within major vegetation types during each sampling period for RBOSP

Vegetation Type	Number of Individuals for Each Species [1/]		
	Least Chipmunk (*Eutamias minimus*)	Deer Mouse (*Peromyscus maniculatus*)	Long-tailed Vole (*Microtus longicaudus*)
Aspen			5
Mixed brush	5	5	
Pinyon-juniper (southern slope)	5	5	
Pinyon-juniper (northern slope)	5	5	
Sagebrush	5	5	
Greasewood-sagebrush	5	5	5
TOTAL	25	25	10

[1/] These species were selected because they are among the most abundant small mammal species in the vicinity of Tract C-a and are representative of three different groups of rodents (sciurids, cricetids, and microtines).

stretched over the center of the cans guides animals into the traps (Figure 2.3-6). A thin coating of glycerin is deposited on the bottom to minimize the possibility of small animals jumping out of the trap cans. Three trap systems such as the one shown in Figure 2.3-6 are established at each site and operated for 4 days during each small mammal live trapping period. All pitfalls are inspected daily for captures.

Species, sex, age, habitat type and pitfall location are recorded for each captured animal on a standard field data form (Figure 2.3-7). Up to five individuals of each species found dead in the traps are being prepared as voucher specimens, while live animals are released.

2.3.3.3 Results

2.3.3.3.1 Live Trapping

Eight different vegetation types (and variants of these types) were sampled in fourteen different locations (Figure 2.3-4) by live trapping grids during May, 1975. Inclement weather during the May sampling period resulted in numerous trap deaths. Live trapping was conducted for five nights but, due to a 3-day postponement of sampling dictated by the bad weather, these nights were not consecutive. All small mammals captured were weighed and their reproductive status determined. Data were summarized to provide estimates of average weights for each small mammal species by sex and vegetation type, and to provide an overall view of the reproductive status of certain small mammal species in each vegetation type. Summarized live-trap data will also provide information regarding the ecological distribution and relative abundance of trappable small mammals captured during the May, 1975 sampling period.

Thirteen different small mammal species inhabiting the Piceance Basin were represented in May, 1975 live-trapping samples. These species, in addition to all mammalian species captured or observed to date for RBOSP are presented in Table 2.3-3 . Average weights are presented in Table 2.3-4 and the reproductive status of all captured small mammals as determined in the field is presented in Table 2.3-5.

The ecological distribution and abundance of each species, expressed in numbers of small mammals captured per 100 trap nights are presented in Table 2.3-6 for each sampled vegetation type.

Comparisons of the October and December, 1975 small mammal ecological distribution data to the available literature were presented in the Second Quarterly Report. Similar comparisons will be made in this quarter's results in cases where these results are greatly different from those in the previous report.

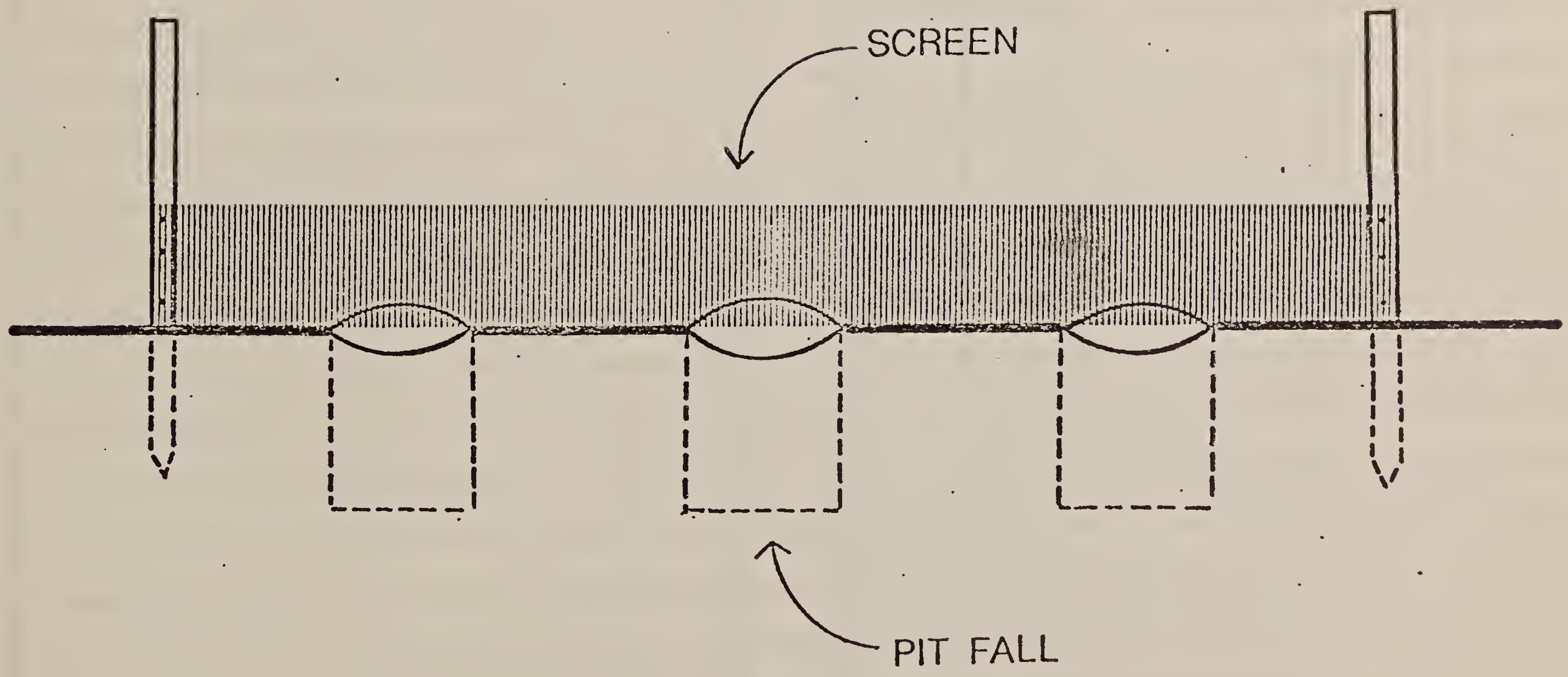


Figure 2.3-6. Typical pitfall can and drift fence arrangement used to capture trap-shy small mammals for RBOSP.

SMALL MAMMAL PITFALL FIELD DATA SHEET

Pitfall ______________ Location ______________________________

Sampling Period __________ Project Number __________ Checked By ______________________

Date	Species	Sex	Age	Comments*

*Reproductive condition, diagnostic characters, future use of specimens, etc.

Figure 2.3-7. Small mammal pitfall field data sheet for RBOSP.

Table 2.3-3. Species of mammals encountered from October, 1974 through May, 1975 for RBOSP 1/

FAMILY Species	Common Name
SORICIDAE (Shrews)	
Sorex cinereus	Masked shrew
Sorex merriami (not previously recorded in the area)	Merriam's shrew
Sorex vagrans 2/ 3/	Vagrant shrew
LEPORIDAE (Hares and rabbits)	
Lepus californicus 2/ 3/	Black-tailed jackrabbit
Lepus townsendii	White-tailed jackrabbit
Sylvilagus sp. 3/	Cottontail
SCIURIDAE (Squirrels, ground squirrels, chipmunks)	
Spermophilus lateralis 3/	Golden-mantled ground squirrel
Spermophilus tridecemlineatus 3/	Thirteen-lined ground squirrel
Eutamias minimus 3/	Least chipmunk
Eutamias quadrivittatus 3/	Colorado chipmunk
Tamiasciurus hudsonicus	Red squirrel
GEOMYIDAE (Pocket gophers)	
Thomomys talpoides 2/ 3/	Northern pocket gopher
CRICETIDAE (New World mice and rats)	
Peromyscus maniculatus 3/	Deer mouse
Peromyscus truei 3/	Pinon mouse
Neotoma cinerea 3/	Bushy-tailed woodrat
Clethrionomys gapperi 3/	Gapper's red-backed vole
Microtus montanus 3/	Montane vole
Microtus longicaudus 3/	Long-tailed vole
Lagurus curtatus 3/	Sagebrush vole
HETEROMYIDAE (Pocket mice, kangaroo rats and mice)	
Perognathus apache 2/ 3/	Apache pocket mouse
CANIDAE (Coyote, wolves and foxes)	
Canis latrans	Coyote

Table 2.3-3. (Continued)

FAMILY Species	Common Name
MUSTELIDAE (Mustelids, weasels, skunks)	
Mustela frenata	Long-tailed weasel
Mustela erminea 2/ 3/	Ermine
FELIDAE (Cats)	
Lynx rufus	Bobcat
CERVIDAE (Deer and elk)	
Cervus canadensis 3/	Elk
Odocoileus hemionus 3/	Mule deer
EQUIDAE (Horses)	
Equus coballus 3/	Feral horse

1/ The following authority is used for small mammal nomenclature:

Hall, E.R. and K.R. Kelson. 1959. The mammals of North America. Ronald Press Company, New York, New York. 1162 pages.

The following authority is used for large mammal (except horses) nomenclature:

Lechleitner, R.R. 1969. Wild mammals of Colorado. Pruett Publishing Company, Boulder. 254 pages.

2/ New species recorded during the quarter March through May, 1975.

3/ Small mammals captured or observed during May, 1975 sampling period.

Table 2.3-4.* Average weights (grams) of adult small mammal species captured during May, 1975 for RBOSP

Vegetation Type (Grid #) (Slope Aspect/Elevation)	Clethrionomys gapperi		Peromyscus maniculatus		Eutamias minimus		Spermophilus lateralis		Microtus montanus		Eutamias quadrivittatus	
	M [1/]	F [2/]	M	F	M	F	M	F	M	F	M	F
Greasewood/Sagebrush (A) (Flat/6400')	-	-	21	22	32	37	212	263	-	-	-	-
Sagebrush (D) (North Slope/7100')	-	-	21	21	34	43	212	164	-	-	-	-
Mixed Brush (E) (South Slope/8300')	-	-	19	20	31	34	116	-	-	-	-	-
Mixed Brush (5) (North Slope/7200')	-	-	20	23	35	41	-	-	-	-	-	-
Bottomland Meadow (1) (Flat/6300')	-	-	18	19	-	32	-	-	29	-	-	-
Upland Meadow (7) (Flat/8500')	-	-	22	15	33	-	-	-	-	-	-	-
Douglas Fir (F) (North Slope/8200')	22	19	-	-	32	38	-	-	-	-	-	-
Aspen (G) (North Slope/8100')	17	19	-	20	35	37	-	-	-	-	-	-
Pinyon-Juniper (B) (South Slope/7000')	-	-	20	20	32	35	178	141	-	-	47	50
Pinyon-Juniper (C) (North Slope/6900')	-	-	19	21	37	39	164	154	-	-	52	55
Pinyon-Juniper/Mixed Brush (4) (North Slope/7400')	-	-	19	20	31	35	181	-	-	-	50	62
Pinyon-Juniper/Sagebrush (6) (Flat/7400')	-	-	19	21	31	34	-	206	-	-	-	-
Rabbitbrush (3) (Flat/6800')	-	-	19	19	30	37	151	177	-	-	-	-
Sagebrush (2) (Flat/6500')	-	-	21	28	34	37	-	-	-	-	-	-
Total Average Adult Weight by Sex	20	19	20	21	33	37	165	191	29	36	50	56
Total Average Adult Weight by Species	(19)		(21)		(35)		(178)		(33)		(54)	

Table 2.3-4. (Continued)

Vegetation Type (Grid #) (Slope Aspect/Elevation)	<u>Lagurus curtatus</u> M	<u>Lagurus curtatus</u> F	<u>Peromyscus truei</u> M	<u>Peromyscus truei</u> F	<u>Neotoma cinerea</u> M	<u>Neotoma cinerea</u> F	<u>Spermophilus tridecemlineatus</u> M	<u>Spermophilus tridecemlineatus</u> F	<u>Perognathus apache</u> M	<u>Perognathus apache</u> F	<u>Microtus longicaudus</u> M	<u>Microtus longicaudus</u> F	<u>Mustela erminea</u> M	<u>Mustela erminea</u> F
Greasewood/Sagebrush (A) (Flat/6400')	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sagebrush (D) (North Slope/7100')	17	20	-	-	-	-	-	-	-	-	-	-	-	-
Mixed Brush (E) (South Slope/8300')	17	22	-	-	-	-	-	-	-	-	24	-	-	-
Mixed Brush (5) (North Slope/7200')	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bottomland Meadow (1) (Flat/6300')	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Upland Meadow (7) (Flat/8500')	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Douglas Fir (F) (North Slope/8200')	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aspen (G) (North Slope/8100')	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pinyon-Juniper (B) (South Slope/7000')	-	-	21	24	-	177	-	-	-	-	-	-	-	-
Pinyon-Juniper (C) (North Slope/6900')	-	-	22	25	-	-	-	-	-	-	-	-	-	-
Pinyon-Juniper/Mixed Brush (North Slope/7400') (4)	-	-	-	-	-	-	-	-	-	-	-	-	53	-
Pinyon-Juniper/Sagebrush(6) (Flat/7400')	-	-	-	-	-	-	-	-	14	-	-	-	-	-
Rabbitbrush (3) (Flat/6800')	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sagebrush (2) (Flat/6500')	-	-	-	-	-	-	60	54	-	-	-	-	-	-
Total Average Adult Weight by Sex	17	21	21	24	-	177	60	54	14	-	24	-	53	-
Total Average Adult Weight by Species	(20)		(22)		(177)		(57)		(14)		(24)		(53)	

1/ M = Male
2/ F = Female

* The data and calculations associated with this table have been checked and corrected by ECI, who is responsible for their accuracy.

Table 2.3-5.* Reproductive status of adult male and female small mammals live trapped during May, 1975 for RBOSP

Vegetation Type (Grid #) (Slope Aspect/Elevation)	*Peromyscus maniculatus* A[1]	I[2]	U[3]	*Microtus montanus* A	I	U	*Clethrionomys gapperi* A	I	U	*Lagurus curtatus* A	I	U	*Microtus longicaudus* A	I	U	*Peromyscus truei* A	I	U	*Eutamias quadrivittatus* A	I	U
Greasewood/Sagebrush (A) (Flat/6400')	8	21	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sagebrush (D) (North Slope/7100')	3	16	6	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
Mixed Brush (E) (South Slope/8300')	3	11	9	0	0	0	0	0	0	0	5	0	0	2	0	0	0	0	0	0	0
Mixed Brush (5) (North Slope/7200')	0	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bottomland Meadow (1) (Flat/6300')	2	4	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland Meadow (7) (Flat/8500')	1	8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Fir (F) (North Slope/8100')	0	0	0	0	0	0	4	12	3	0	0	0	0	0	0	0	0	0	0	0	0
Aspen (G) (North Slope/8100')	0	1	0	0	0	0	3	13	0	0	0	0	0	0	0	0	0	0	0	0	0
Pinyon-Juniper (B) (South Slope/7000')	4	20	10	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	5	9	1
Pinyon-Juniper (C) (North Slope/6900')	4	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5	3	0
Pinyon-Juniper/Mixed Brush(4) (North Slope/7400')	2	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
Pinyon-Juniper/Sagebrush(6) (Flat/7400')	0	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rabbitbrush (3) (Flat/6800')	5	17	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sagebrush (2) (Flat/6500')	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	41	160	44	0	2	0	6	26	3	1	6	0	0	2	0	1	6	1	12	13	1

Table 2.3-5. (Continued)

Vegetation Type (Grid #) (Slope Aspect/Elevation)	Eutamias minimus			Neotoma cinerea			Spermophilus lateralis			Spermophilus tridecemlineatus			Mustela erminea			Perognathus apache		
	A	I	U	A	I	U	A	I	U	A	I	U	A	I	U	A	I	U
Greasewood/Sagebrush (A) (Flat/6400')	9	22	12	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0
Sagebrush (D) (North Slope/7100')	26	8	5	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0
Mixed Brush (E) (South Slope/8300')	19	28	4	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
Mixed Brush (5) (North Slope/7200')	9	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bottomland Meadow (1) (Flat/6300')	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland Meadow (7) (Flat/8500')	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Fir (F) (North Slope/8100')	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspen (G) (North Slope/8100')	7	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pinyon-Juniper (B) (South Slope/7000')	10	19	5	1	1	1	1	4	0	0	0	0	0	0	0	0	0	0
Pinyon-Juniper (C) (North Slope/6900')	6	10	2	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0
Pinyon-Juniper/Mixed Brush (4) (North Slope/7400')	9	10	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
Pinyon-Juniper/Sagebrush (6) (Flat/7400')	5	5	2	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0
Rabbitbrush (3) (Flat/6800')	5	19	6	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
Sagebrush (2) (Flat/6500')	3	5	4	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0
Totals	120	158	37	1	1	1	11	19	1	1	2	0	1	0	0	1	1	0

1/ active
2/ inactive
3/ undetermined

* The data and calculations associated with this table have been checked and corrected by ECI, who is responsible for their accuracy.

Table 2.3-6. Ecological distribution and abundance (animals/100 trap nights) of trappable small mammals captured on live trapping grids during May, 1975 for RBOSP

Vegetation Type (Grid #) (Slope Aspect/Elevation)	Trap Nights	Peromyscus maniculatus	Microtus montanus	Clethrionomys gapperi	Lagurus curtatus	Microtus longicaudus	Peromyscus truei	Eutamias quadrivittatus
Greasewood/Sagebrush (A) (Flat/6400')	665	5.1	0	0	0	0	0	0
Sagebrush (D) (North Slope/7100')	665	3.6	0	0	0.3	0	0	0
Mixed Brush (E) (South Slope/8300')	665	3.5	0	0	0.8	0.3	0	0
Mixed Brush (5) (North Slope/7200')	165	7.9	0	0	0	0	0	0
Bottomland Meadow (1) (Flat/6300')	165	4.2	1.2	0	0	0	0	0
Upland Meadow (7) (Flat/8500')	165	7.9	0	0	0	0	0	0
Douglas Fir (F) (North Slope/8200')	305		0	6.2	0	0	0	0
Aspen (G) (North Slope/8100')	305	0.3	0	5.2	0	0	0	0
Pinyon-Juniper (B) (South Slope/7000')	665	5.1	0	0	0	0	0.9	2.3
Pinyon-Juniper (C) (North Slope/6900')	665	4.0	0	0	0	0	0.3	1.2
Pinyon-Juniper/Mixed Brush(4) (North Slope/7400')	165	7.9	0	0	0	0	0	1.8
Pinyon-Juniper/Sagebrush(6) (Flat/7400')	165	13.3	0	0	0	0	0	0
Rabbitbrush (3) (Flat/6800')	165	16.4	0	0	0	0	0	0
Sagebrush (2) (Flat/6500')	165	3.0	0	0	0	0	0	0

Table 2.3-6. (Continued)

Vegetation Type (Grid #) (Slope Aspect/Elevation)	Trap Nights	Eutamias minimus	Neotoma cinerea	Mustela erminea	Spermophilus lateralis	Spermophilus tridecemlineatus	Perognathus apache	Total
Greasewood/Sagebrush (A) (Flat/6400')	665	6.6	0	0	0.8	0	0	12.5
Sagebrush (D) (North Slope/7100')	554	5.9	0	0	0.8	0	0	10.6
Mixed Brush (E) (South Slope/8300')	665	7.7	0	0	0.6	0	0	12.6
Mixed Brush (5) (North Slope/7200')	165	14.5	0	0	0	0	0	22.4
Bottomland Meadow (1) (Flat/6300')	165	1.2	0	0	0	0	0	6.6
Upland Meadow (7) (Flat/8500')	165	1.8	0	0	0	0	0	9.7
Douglas Fir (F) (North Slope/8200')	305	3.0	0	0	0	0	0	9.2
Aspen (G) (North Slope/8100')	305	4.9	0	0	0	0	0	10.4
Pinyon-Juniper (B) (South Slope/7000')	665	5.1	0.5	0	0.8	0	0	14.7
Pinyon-Juniper (C) (North Slope/6900')	665	2.7	0	0	1.2	0	0	9.5
Pinyon-Juniper/Mixed Brush(4) (North Slope/7400')	165	13.3	0	0.6	0.6	0	0	24.2
Pinyon-Juniper/Sagebrush(6) (Flat/7400')	165	7.3	0	0	0.6	0	1.2	22.4
Rabbitbrush (3) (Flat/6800')	165	18.2	0	0	2.4	0	0	37.0
Sagebrush (2) (Flat/6500')	165	7.3	0	0	0	1.8	0	12.1

The deer mouse (Peromyscus maniculatus) was present in all vegetation types sampled except Douglas fir. This species was most abundant (16.4 mice/100 trap nights) in rabbitbrush (flat with an elevation of 6800 ft) but was also trapped in large numbers (13.3 mice/100 trap nights) in pinyon-juniper/sagebrush (flat with an elevation of 7400 ft). Peromyscus maniculatus was trapped in small numbers in high elevation aspen (0.3 mice/100 trap nights) but was not captured in Douglas fir during the May, 1975 sampling period (Table 2.3-6). The average weight for all adult deer mice of both sexes was 21 gm. Adult females averaged slightly heavier than adult male deer mice captured in all vegetation types (Table 2.3-4). The average weights of male and female Peromyscus maniculatus did not differ radically from vegetation type to vegetation type (Table 2.3-4). Only about 16 percent of the adult deer mice captured during May, 1975 were reproductively active and the majority of these were taken in vegetation types below 7100 ft elevation (Table 2.3-5).

The montane vole (Microtus montanus) was captured in low numbers (1.2 mice/100 trap nights) only in bottomland meadow during May, 1975 sampling. This species did not appear in samples from any other vegetation type. The average weight for the few individuals captured (1 male and 1 female) was 33 gm. Neither individual was reproductively active during the May sampling period.

The red-backed vole (Clethrionomys gapperi) was captured in moderate numbers (5-6 animals/100 trap nights) only in aspen and Douglas fir vegetation types. Adult male and female red-backed voles averaged 19 gm; males slightly outweighed females (Table 2.3-4). Only 21 percent of the adult male and female red-backed voles were reproductively active during the May, 1975 sampling period.

Small numbers of the sagebrush vole (Lagurus curtatus) were captured in mixed brush (south slope/8300 ft elevation) and in sagebrush (north slope/7100 ft elevation). This species was not recorded for any other vegetation type during May, 1975. Female sagebrush voles in this small sample averaged nearly four grams heavier than males. The average weight of all adults was 20 gm. Of the seven adult Lagurus curtatus captured, only one was reproductively active during May, 1975 sampling.

Only two long-tailed voles (Microtus longicaudus) (0.3 voles/100 trap nights) were captured during May, 1975 sampling and these were taken in a south slope mixed brush vegetation type at about 8300 ft elevation. This species was not recorded in any other vegetation type during the sampling period. Both long-tailed voles captured were males and they averaged 24 gm in weight. Neither male was reproductively active during May, 1975 sampling.

Peromyscus truei (piñon mouse) was captured only in the pinyon-juniper vegetation type during May, 1975 sampling. Small numbers of this species were taken in both north and south slope pinyon-juniper vegetation types at 6900 ft and 7000 ft elevation, respectively. The pinon mouse did not appear in samples from pinyon-juniper/mixed brush or pinyon-juniper/sagebrush above 7000 ft elevation. The adult females averaged about 3 gm heavier than adult males. The average weight for all adults of both sexes was 22 gm. Only one of the eight individual piñon mice captured was reproductively active during May, 1975 sampling.

Small numbers of the Colorado chipmunk (Eutamias quadrivittatus) were taken from three different pinyon-juniper live-trap grids; pinyon-juniper on a north slope (elevation 6900 ft), pinyon-juniper on a south slope (elevation 7000 ft), and pinyon-juniper/mixed brush on a north slope (elevation 7400 ft). The average weights of adult Colorado chipmunks did not differ greatly from site to site, however, adult females averaged 6 gm heavier than adult males. The average weight for all adult Eutamias quadrivittatus was 54 gm Nearly 50 percent of all Colorado chipmunks examined during the May, 1975 sampling period were reproductively active.

Eutamias minimus (the least chipmunk) was captured in all vegetation types sampled. This species was most abundant (18.2 chipmunks/100 trap nights) on the flat rabbitbrush line trap grid at 6800 ft elevation but was also numerous (13-14 chipmunks/100 trap nights) on the north slope pinyon-juniper/mixed brush and on the north slope mixed brush live trap grids above 7200 ft elevation. Very few least chipmunks (< 2 animals/100 trap nights) were taken in bottomland and upland meadow vegetation types. The average weights of adult least chipmunks of both sexes did not differ greatly from one vegetation type to the next. Adult females averaged about 4 gm heavier than adult males. The average weight for all adult Eutamias minimus sampled was 35 gm. Nearly 40 percent of all adult least chipmunks examined during this sampling period were reproductively active.

Three bushy-tailed woodrats (Neotoma cinerea) (0.4 animals/100 trap nights) were captured on the south slope (7000 ft elevation) pinyon-juniper live trap grid during May, 1975. This species was not taken in any other vegetation type. The average weight of two of these adult woodrats was 177 gm; one was a lactating female.

One short-tail weasel (Mustela erminea) was captured in a live trap on the north slope pinyon-juniper/mixed brush grid at an elevation of 7400 ft. This species was not captured in any other vegetation type. Examination of the external genetalia revealed that it was an adult male in reproductive condition. It weighed 53 gm.

Spermophilus lateralis (the golden-mantled ground squirrel) was captured in small numbers in eight different vegetation types from 6400 ft to

8300 ft elevation. More golden-mantled squirrels (2.4 squirrels/100 trap nights) were taken on the flat rabbitbrush live trap grid at 6800 ft elevation than at any other sample site. There was considerable variation in the weights of adult golden-mantled squirrels sampled, probably due to the difficulty experienced in handling and weighing such hyperactive large rodents. The average weight of all adult golden-mantled squirrels sampled was 178 gm. Slightly over 35 percent of all adult Spermophilus lateralis examined during May, 1975 were reproductively active.

Small numbers of the thirteen-lined ground squirrel (Spermophilus tridecemlineatus) were taken only on the flat sagebrush live-trap grid at 6500 ft elevation (1.82 animals/100 trap nights) The average adult weight for this small sample size was 57 gm. One of the three squirrels examined, an adult male, was reproductively active.

Two Perognathus apache (Apache pocket mouse) were captured on the flat pinyon-juniper/sagebrush live trap grid at 7400 ft elevation. Both individuals were adult males and averaged 14 gm in weight. One of these males was in breeding condition when examined.

The different vegetation types varied considerably with regard to the total number of small mammals captured per 100 trap nights of effort expended. Rabbitbrush (flat; elevation 6800 ft) was by far the most productive vegetation type in terms of the total number of animals captured. Only three different species contributed to the 37.0 animals captured/100 trap nights and two of these species, the deer mouse and the least chipmunk, were captured in large numbers. Pinyon-juniper/sagebrush (flat; elevation 7400 ft), pinyon-juniper/mixed brush (north slope; 7400 ft elevation) and mixed brush (north slope; 7200 ft elevation) all yielded large numbers of trappable small mammals during the May, 1975 sampling period. Again, the deer mouse and the least chipmunk comprised the major portion of the sample. These two species were the most abundant small mammals in all vegetation types sampled except aspen and Douglas fir where the red-backed vole was the most abundant small mammal species captured during May, 1975 sampling.

The bottomland meadow live-trap grid demonstrated the lowest trap success during the May, 1975 sampling period.

The greatest number of different small mammal species was recorded for the south slope mixed brush vegetation type (8300 ft elevation) and three pinyon-juniper sample sites; pinyon-juniper north and south slopes (6900 ft and 7000 ft elevation, respectively) and north slope pinyon-juniper/mixed brush at an elevation of 7400 ft. Five different small mammal species were captured in each of these vegetation types except pinyon-juniper south slope where six different species were recorded (Table 2.3-6).

2.3.3.3.2 Laboratory Analysis of Stomach Contents

Remains of food in stomachs represent most accurately the food habits of small mammals (Jameson, 1952). Stomach analyses are being conducted on animals captured during each small mammal trapping period in order to gain an understanding of food habits of the three predominant species found on and near Tract C-a. These species are: Peromyscus maniculatus (deer mouse), Eutamias minimus (least chipmunk), and Microtus longicaudus (long-tailed vole). Nineteen deer mice, twelve chipmunks, and four long-tailed voles (a total of 35 animals) were captured during the May, 1975 small mammal live trapping period and their stomach contents analyzed. Three deer mice from pinyon-juniper (north slope/6900 ft elevation), four deer mice from pinyon-juniper (south slope/7000 ft elevation), five deer mice and four least chipmunks from sagebrush (north slope/7100 ft elevation), four deer mice and five least chipmunks from greasewood/sagebrush (flat/6400 ft elevation), three deer mice and three least chipmunks from mixed brush (south slope/8300 ft elevation) and four long-tailed voles from aspen (north slope/8100 ft elevation) were examined for stomach contents. Results are summarized in Tables 2.3-7 through 2.3-12.

Although trapping efforts were increased in areas where trap success was low, the desired number of animals from the six vegetation types sampled during May, 1975 was not captured. Unfavorable weather conditions during the sampling period may have curtailed the activities of these small mammals, resulting in low trap success. Trapping was terminated after four days of effort.

Stomachs were not preserved in 70 percent ethanol as originally planned. It was discovered that alcohol bleached the chlorophyll in plant tissues, thereby interfering with the identification of succulent plant parts. Freezing of captured animals provided sufficient preservation of plant tissues for stomach analyses.

With the first warm weather, new kinds of foods, such as green herbaceous vegetation and invertebrates, become available and possibly as a result seeds were consumed in smaller quantities than were noted for stomach samples examined during winter, 1974. Although seeds still comprised the bulk of the deer mouse's stomach contents in most vegetation types sampled this species utilized succulent vegetation to a greater extent than was recorded in winter investigations. One deer mouse examined from sagebrush (north slope/7100 ft elevation) contained 66 percent insect material in its stomach contents. Insects are the most widely distributed food source available to deer mice in most areas (Jameson, 1952). Their greater availability during warm seasons is reflected in their greater utilization by deer mice in May than in November and December. Approximately 7.4 percent of the stomach contents of deer mice examined from five different vegetation types was comprised of insect material. The extent to which deer mice utilize insects as compared to plant material will become evident as more data are accumulated.

Table 2.3-7. Percent diet composition for _Peromyscus maniculatus_ captured in pinyon-juniper (north slope/ 6900 ft) May 19, 1975 for RBOSP

Species	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Peromyscus maniculatus	62	36	0	2	0
Peromyscus maniculatus	86	10	0	4	0
Peromyscus maniculatus	90	8	0	2	0
Total Percent Frequency for 3 Individuals	79.3%	18%	0%	2.67%	0%

Table 2.3-8. Percent diet composition for *Peromyscus maniculatus* captured in pinyon-juniper (south slope/7000 ft) May 22, 1975 for RBOSP

Species	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Peromyscus maniculatus	56	42	0	0	2
Peromyscus maniculatus	66	20	0	2	12
Peromyscus maniculatus	68	18	0	10	4
Peromyscus maniculatus	74	10	0	14	2
Total Percent Frequency for 4 Individuals	66%	22.5%	0%	6.5%	5%

Table 2.3-9. Percent diet composition for *Microtus longicaudus* captured in aspen (north slope/8100 ft) May 22, 1975 for RBOSP

Species	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Microtus longicaudus	94	6	0	0	0
Microtus longicaudus	98	2	0	0	0
Microtus longicaudus	96	2	0	0	2
Microtus longicaudus	96	0	2	0	2
Total Percent Frequency for 4 Individuals	96%	2.5%	0.5%	0%	1%

Table 2.3-10. Percent diet composition for *Peromyscus maniculatus* and *Eutamias minimus* captured in greasewood/sagebrush (flat/6400 ft) May 23, 1975 for RBOSP

Species	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Peromyscus maniculatus	90	6	0	4	0
Peromyscus maniculatus	84	16	0	0	0
Peromyscus maniculatus	80	16	4	0	0
Peromyscus maniculatus	86	10	2	2	0
Total Percent Frequency for 4 Individuals	85%	12%	1.5%	1.5%	0%
Eutamias minimus	86	14	0	0	0
Eutamias minimus	92	8	0	0	0
Eutamias minimus	84	12	2	2	0
Eutamias minimus	88	8	4	0	0
Eutamias minimus	90	10	0	0	0
Total Percent Frequency for 5 Individuals	88%	10.4%	1.2%	0.4%	0%

Table 2.3-11. Percent diet composition for *Peromyscus maniculatus* and *Eutamias minimus* captured in sagebrush (north slope/7100 ft) May 20-22, 1975 for RBOSP

Species	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Peromyscus maniculatus	12	22	0	66	0
Peromyscus maniculatus	16	82	0	2	0
Peromyscus maniculatus	56	30	2	12	0
Peromyscus maniculatus	50	22	0	28	0
Peromyscus maniculatus	68	24	0	8	0
Total Percent Frequency for 5 Individuals	40.4%	36.0%	0.4%	23.2%	0%
Eutamias minimus	2	98	0	0	0
Eutamias minimus	42	54	0	4	0
Eutamias minimus	56	36	0	8	0
Eutamias minimus	50	44	2	4	0
Total Percent Frequency for 4 Individuals	37.5%	58.0%	0.5%	4.0%	0%

Table 2.3-12. Percent diet composition for *Peromyscus maniculatus* and *Eutamias minimus* captured in mixed brush (south slope/8300 ft) May 21, 1975 for RBOSP

Species	Seed	Succulent	Vertebrate	Invertebrate	Empty Field
Peromyscus maniculatus	32	62	6	0	0
Peromyscus maniculatus	78	10	2	10	0
Peromyscus maniculatus	58	42	0	0	0
Total Percent Frequency for 3 Individuals	56%	38%	2.7%	3.3%	0%
Eutamias minimus	10	90	0	0	0
Eutamias minimus	66	32	2	0	0
Eutamias minimus	94	6	0	0	0
Total Percent Frequency for 3 Individuals	56.67%	42.67%	0.67%	0%	0%

Animals examined from sagebrush (north slope/7100 ft elevation) showed higher percentages (36.0 percent of total stomach contents for deer mice and 58.0 percent for chipmunks) of succulent plant parts consumed than did the same species in other areas. This is probably due to the availability of sage leaves which had recently budded and of other recently sprouted herbaceous vegetation.

Only one least chipmunk was captured during winter sampling while twelve least chipmunks from three habitat types, mixed brush (south slope/8300 ft elevation), sagebrush (north slope/7100 ft), and greasewood/sagebrush (flat/6400 ft) were captured and examined during May, 1975 sampling; therefore no seasonal comparisons of food habits can yet be made for this species.

Least chipmunks utilized mainly succulent plant parts and seeds during the May, 1975 sampling period. Succulent plant parts comprised approximately 42.5 percent of the stomach contents of least chipmunks captured in mixed brush (south slope/8300 ft) and 58.5% of least chipmunks captured in sagebrush (north slope/7100 ft). Least chipmunks from greasewood/sagebrush, however, utilized seeds to a greater extent than chipmunks captured in other vegetation types (88 percent of their stomach contents).

Four long-tailed voles captured in aspen (north slope/8100 ft) were analyzed for stomach contents during the May, 1975 sampling period. Seeds averaged 96 percent of the long-tailed vole stomach contents examined. This high percentage of seeds may be due to the limited availability of other food sources at this high altitude (8100 ft) in early spring. Stomach contents of least chipmunks from the mixed brush (south slope/8300 ft) vegetation type contained 43 percent succulent material and 57 percent seeds.

Further investigations should provide a more detailed and complete picture of food habits of Peromyscus maniculatus, Eutamias minimus, and Microtus longicaudus in the study area. Additional data should permit more accurate determinations of dietary differences between species inhabiting different vegetation types.

2.3.3.3.3 Laboratory Analysis of Reproductive Effort

Analyses of small mammal reproductive effort were conducted on 31 individuals of the three predominant species during the May, 1975 sampling period. The results of these analyses are presented in Table 2.3-13. All analyses were performed in the field. Corpora albicantia were used to check litter sizes in cases where resorption of embryos had occurred, since resorbed embryos leave placental scars (Davis and Emlen, 1948). Adult females that had died in live traps on grids in six different vegetation types were utilized in reproductive analyses.

Table 2.3-13. Reproductive status of female Peromyscus maniculatus, Eutamias minimus, and Microtus longicaudus captured during May, 1975 for RBOSP

Species	Habitat	Reproductive Status Inactive	Reproductive Status Active	Comments
Microtus longicaudus	Aspen east slope/8400'	x		
M. longicaudus	Aspen east slope/8400'	x		
M. longicaudus	Aspen east slope/8400'	x		
Eutamias minimus	Sagebrush north slope/7000'		x	5 embryos; 2R, 3L 1/
E. minimus	Sagebrush north slope/7000'	x		
Peromyscus maniculatus	Sagebrush north slope/7000'	x		
P. maniculatus	Sagebrush north slope/7000'		x	3 placental scars on right, old
P. maniculatus	Sagebrush north slope/7000'		x	6 placental scars, 3L, 3R, recent
P. maniculatus	Pinyon-juniper south slope/6600'		x	7 placental scars, 4R, 3L, recent
P. maniculatus	Pinyon-juniper south slope/6600'	x		
P. maniculatus	Pinyon-juniper south slope/6600'		x	4 embryos, 2L, 2R
P. maniculatus	Pinyon-juniper south slope/6600'		x	5 embryos, 4R, 1L
E. minimus	Pinyon-juniper south slope/6600'		x	7 embryos, 3R, 4L
E. minimus	Pinyon-juniper south slope/6600'	x		
E. minimus	Pinyon-juniper south slope/6600'		x	7 embryos, 5R, 2L
E. minimus	Pinyon-juniper south slope/6600'		x	7 embryos, 3R, 4L
P. maniculatus	Pinyon-juniper north slope/7000'		x	6 embryos, 3R, 3L
E. minimus	Greasewood/sagebrush flat/6600'	x		
E. minimus	Greasewood/sagebrush flat/6600'	x		

Table 2.3-13. (Continued)

Species	Habitat	Reproductive Status Inactive	Reproductive Status Active	Comments
E. minimus	Greasewood/sagebrush flat/6600'	x		
E. minimus	Greasewood/sagebrush flat/6600'	x		
E. minimus	Greasewood/sagebrush flat/6600'		x	6 embryos, 3R, 3L
P. maniculatus	Greasewood/sagebrush flat/6600'		x	6 embryos, 3R, 3L
P. maniculatus	Greasewood/sagebrush flat/6600'		x	5 embryos, 2R, 3L
P. maniculatus	Greasewood/sagebrush flat/6600'	x		
P. maniculatus	Greasewood/sagebrush flat/6600'	x		
E. minimus	Mixed Brush south slope/8400'		x	7 embryos, 5R, 2L
E. minimus	Mixed Brush south slope/8400'	x		
E. minimus	Mixed Brush south slope/8400'	x		
E. minimus	Mixed Brush south slope/8400'	x		
P. maniculatus	Mixed Brush south slope/8400'	x		

1/ 2R = 2 embryos right side
3L = 3 embryos left side

Fourteen (45 percent) of the 31 females examined contained embryos or placental scars. Of the eleven pregnant females examined, ten (91.0 percent) were from vegetation types below 7100 ft elevation; greasewood/sagebrush (flat/6600 ft elevation), pinyon-juniper (south slope/6600 ft), sagebrush (north/slope/7000 ft elevation) and pinyon-juniper (north slope/7000 ft elevation). One deer mouse (Peromyscus maniculatus) from pinyon-juniper(south slope/6600 ft) contained placental scars. Two deer mice and three least chipmunks (Eutamias minimus) from pinyon-juniper (south slope/6600 ft) contained embryos. One least chipmunk and two deer mice from greasewood/sagebrush (flat/6600 ft elevation) contained embryos (Table 2.3-13).

Only one female least chipmunk from mixed brush (south slope/8400 ft) had embryos. None of the three long-tailed vole (Microtus longicaudus) females examined from the vegetation type above 8000 ft elevation showed signs of reproductive activity. This low occurrence of reproductive activity may be due to the adverse weather conditions that usually prevail later into the spring at these higher elevations. The increased reproductive activity at elevations below 8000 ft may be due to the milder weather conditions and the resultant early supply of food in early spring, 1975. However, in all cases the sample size is too small to permit definitive conclusions.

The least chipmunks that were reproductively active averaged 6.5 young per litter. Chipmunks have one short breeding season, with a single litter. The young breed the following season (Tevis, 1955). The adult females examined were probably in their first breeding season since no placental scars were found. The data at this time are too incomplete to allow for comparisons of small mammal reproductive success in different habitat types.

2.3.3.3.4 Pitfall Trapping

Pitfall traps were established in 13 locations, each in a different vegetation type or a variant of a vegetation type (Figure 2.3-4). Pitfalls were operated for five days from May 19 through May 24, 1975. Eight individual small mammals representing three different species were captured in four separate locations. Bottomland meadow pitfall traps were the most successful capturing four montane voles (Microtus montanus) and one mountain pocket gopher (Thomomys talpoides). The Apache pocket mouse (Perognathus apache) was taken by pitfall traps in two different sagebrush habitats and in one pinyon-juniper/sagebrush location.

2.3.3.3.5 Collection of Voucher Specimens

Voucher specimens of five different small mammal species were collected during the May, 1975 sampling period. Three Apache pocket mice (Perognathus apache), two vagrant shrews (Sorex vagrans), two golden-mantled ground squirrels (Spermophilus lateralis), one pinon mouse (Peromyscus truei) and one short-tailed weasel (Mustela erminea) were collected and are being prepared as voucher specimens.

2.3.3.4 Summary and Conclusions

2.3.3.4.1 Live Trapping

Small mammals were sampled from eight different vegetation types and variants of these types in fourteen separate locations during May, 1975. Ecological distribution, abundance, average weight and reproductive data for each species and vegetation type have been summarized and tentatively interpreted.

Thirteen different small mammal species were recorded during May, 1975 at fourteen live-trap grids on and near Tract C-a. The deer mouse (Peromyscus maniculatus) and the least chipmunk (Eutamias minimus) exhibited the widest ecological range and the greatest relative abundance of any of the small mammals captured. The red-backed vole (Clethrionomys gapperi), piñon mouse (Peromyscus truei) and Colorado chipmunk (Eutamias quadrivittatus) seemed to show definite habitat preferences. The red-backed vole appeared only in Douglas fir and aspen while the piñon mouse and Colorado chipmunk were taken only in pinyon-juniper vegetation types (Table 2.3-6).

The greatest number of individual small mammals was recorded for the rabbitbrush vegetation type.

The greatest number of different small mammal species was recorded for the south slope mixed brush vegetation types (8300 ft elevation) and three pinyon-juniper sample sites; pinyon-juniper north and south slopes (6900 ft and 7000 ft elevation, respectively) and north slope pinyon-juniper/mixed brush at an elevation of 7400 ft. Five different small mammal species were captured in each of these vegetation types except pinyon-juniper south slope where six different species were recorded (Table 2.3-6).

Reproductive information gathered in the field during May, 1975 sampling is not conclusive. Nearly 30 percent of all adult small mammals of both sexes examined during the May, 1975 sampling period were reproductively active.

2.3.3.4.2 Laboratory Analysis of Stomach Contents

Unfavorable weather conditions resulting in reduced small mammal activity precluded collection of the desired number of specimens for stomach analyses. The nineteen deer mice (Peromyscus maniculatus) examined from five different vegetation types fed primarily on seeds; however, they did show a tendency to make greater use of invertebrate and succulent plant material during May, 1975 sampling. The four long-tailed voles examined from the high elevation aspen sampling site fed primarily on seeds (96 percent of the stomach contents). Four least chipmunks (Eutamias minimus) examined from a north slope

sagebrush (elevation 7100 ft) vegetation type fed mainly on succulent plant material (58.0 percent of the stomach contents). Five other least chipmunks examined from a flat greasewood/sagebrush (elevation 6400 ft) vegetation type fed primarily on seeds.

2.3.3.4.3 Laboratory Analysis of Reproductive Effort

Thirty-one females of the three predominant small mammal species in the vicinity of Tract C-a (deer mouse, least chipmunk, and long-tailed vole) were examined in the laboratory during May, 1975 for reproductive effort. Fourteen (45 percent) of the 31 adult females examined contained either embryos or placental scars and were classified as reproductively active. Of the eleven females containing embryos, ten (91.0 percent) were from sampling stations below 7100 ft elevation.

2.3.3.4.4 Pitfall Trapping

Pitfall traps were established in 13 locations, each in a different vegetation type or a variant of a vegetation type. Eight individual small mammals representing three different species were captured in four separate locations.

2.3.3.4.5 Collection of Voucher Specimens

Voucher specimens of five different small mammal species were collected during the May, 1975 sampling period. These specimens are now being prepared in the laboratory and will be entered into the RBOSP voucher specimen collection.

2.3.3.5 SMALL MAMMAL RAW DATA

C.5.1.2.1-11

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET
(flat / 6300')

Grid Name Bottomland Meadow Grid # 1 Project 83 Trap Night I

Date, time traps set 5/18/75 (~1300) Date, time traps checked 5/19/75 (1035)

La[st] toe clip # used on previous day 0405 ↓ Dec., 1975 Field Analyst(s) T. Turner / T. Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal (gm) Weight	Reprod. Status	Additional* Notes
4-4	E. Mini.	0110	F	Ad	42 tot. -12 bag 30 g raw	Inactive	—

*Key taxonomic characters, physical condition of animal, etc.

C. 5.1.21-12 | 105 of 8

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET
(flat/6300)

Grid Name Bottomland Meadow Grid # 1 Project 83 Trap Night 2

Date, time traps set 5/19/75 (1035) Date, time traps checked 20 May 1975 (720

Last toe clip # used on previous day C011 December Field Analyst(s) Jermaine Reyes

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight gm	Reprod. Status	Additional Notes*
C-12	Peromyscus maniculatus	C012	♂	Adult	16g	inactive	none
C-3	~~Perognathus [illegible]~~ Thomomys talpoides	C013	♀	Juv ~~Adult~~	40g	inactive	140-35-23-? = 40g

*Key taxonomic characters, physical condition of animal, etc.

RDCSP PROGRESS REPORT

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET
(flat / 6300')

Grid Name Bottomland Meadow Grid # I Project 83 Trap Night 2

Date, time traps set 5/19/75 (1035) Date, time traps checked 5/20/75 (0700)

Last toe clip # used on previous day 0110 Field Analyst(s) Reyes / Turner

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight gm	Reprod. Status	Additional Notes*
C-13	P. man	0120	♂	Ad	22 gm	inactive	—
A-13	P. man	0030	♂	Ad	20	"	—
A-5	E. min	0110	♀	Ad	33	"	—
A-3	vole (?)	0005	♀	Ad	30		body 105 ta. 140

*Key taxonomic characters, physical condition of animal, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name BOTTOMLAND MEADOW (flat / 6300') Grid # I Project 83 Trap Night 3

Date, time traps set 5/20/75 (0720) Date, time traps checked 5/21/(1730)

Last toe clip # used on previous day 0013 Field Analyst(s) Baker

QA Check JB

all traps closed

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ animal Weight grams	Reprod. Status	Additional Notes*
A-3	Microtus	0005	♂	A	—	inact	Dead
A-4	E. minimus	0110	♀	A	—	inactive	Dead
C-10	P. maniculatus	0014	♂	A	18	inact.	
A-13	P. man.	0020	♂	A	—	inact	Dead
C-13	P. man	0120	♂	A	22	inact.	swollen testes
D-11	M. montanus	0001	♂	A	29	inact.	b. 116, t. ~~20~~ 40, h.f 20

*Key taxonomic characters, physical condition of animal, etc.

C.3.1.2.1 - 15

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Bottomland Meadow Grid # 1 (Flat / 6300') Project 83 Trap Night 4

Date, time traps set 5/24/75 8 AM (0800) Date, time traps checked 5/25/75 (0850)

Last toe clip # used on previous day 0014 Field Analyst(s) GAR / McGuire

bag - 12g QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight gm	Reprod. Status	Additional Notes*
C-13	P. man	0120	♂	Ad.	20g	Active	swollen testes
C-12	P man	0105	♀	Ad.	21 g	Active	pregnant

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

C.5.1.2.1-16

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Bottomland Meadow (Flat/6300) Grid # 1 Project 83 Trap Night 4

Date, time traps set 5/24/75 8 AM (0800) Date, time traps checked 5/25/75 (0850)

Last toe clip # used on previous day 0120 Field Analyst(s) McGuire/Reyes

QA Check

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ animal Weight gm	Reprod. Status	Additional Notes*
A-13	E. min	0130	♀	ad	32 gm	inactive	—
A-12	P. man	0140	♀	ad	17 gm	active	vag open

*Key taxonomic characters, physical condition of animal, etc.

C. 5.1.2.1 - 1/ 181

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET (Flat 6300')

Grid Name Bottomland meadow Grid # 1 Project 83 Trap Night 5

Date, time traps set 5/25/75 08:50 AM Date, time traps checked 5/26/75 08:00 AM

Last toe clip # used on previous day 0140 Field Analyst(s) McGuire / Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
C-13	P. man	0120	♂	ad	16 gm	inactive	dead in trap
C-16	P. man	0014	♂	ad	14 gm	"	

*Key taxonomic characters, physical condition of animal, etc.

[illegible]

C. 5.1.2.3 -11

1 of 1

BLOOP PROGRESS REPORT

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Boothill Sage~~ Sagebrush Flat (6500') Grid # 2 Project 83 Trap Night #1

Date, time traps set 5/18/75 (0715) Date, time traps checked (5/19/75 (1030)

Last toe clip # used on previous day 0014 Field Analyst(s) Sang, Kestrel

Bag weight 11 (—— = inactive) QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
A-1	S. tridecemlineatus	0015	♂	A	62 ~~73~~ gm	——	——
A-12	E. minimus	3000	♀	A	34 ~~45~~	——	mites
A-13	P. maniculatus	0014	♂	A	22 ~~33~~	dist. testes	mites
C-12	S. tridec.	0021	♂	A	59 ~~70~~	——	mites
C-10	E. min.	0050	♂	A	33 ~~44~~	——	——
C-3	E. min.	0040	♂	A	——	——	escapee
C-2	P. man.	0022	♂	A	21 ~~32~~	——	——
C-1	E. min	0005	♂	A	29 ~~40~~	dist. test.	——

*Key taxonomic characters, physical condition of animal, etc.

C. 5.1.2.3 -12

1 of 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Boothill sage~~ Sagebrush (Flat/6500') Grid # 2 Project 83 Trap Night #2

Date, time traps set 19 May 75 (1030) Date, time traps checked 20 May 75 (0900 hrs)

Last toe clip # used on previous day 0022 Field Analyst(s) Sang, Pick

QA Check JB

Bag weight = 12

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight (g)	Reprod. Status	Additional Notes*
A-3	E. minimus	0010	♀	A	(43) ~~55-12~~	pregnant	—
B-5	P. maniculatus	0024	♂	A	20	inactive	—
A-11	P. man	0014	♂	A	20	"	—
C-1	E. min	0023	♀	A	33	"	—
C-2	E. min	0030	♂	A	31	dist. test.	—
C-10	E. min	0050	♂	A	35	dist. test.	—
C-13	S. tridecimlineatus	0021	♂	A	59	inactive	—

*Key taxonomic characters, physical condition of animal, etc.

C.5.1.2.3-13

1 of 1

Sage brush (Flat/6500') SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Boothill Sage~~ Grid # 2 Project 83 Trap Night #3

Date, time traps set 20 MAY, 75 (0900 hrs) Date, time traps checked 21 MAY, 75 (0800)

Last toe clip # used on previous day 0023 Field Analyst(s) Sanz, Reyes

Bag weight 12 gr. (all traps closed) QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight grams	Reprod. Status	Additional Notes*
A-1	Eutamias minimus	0005	♂	A	30	swollen testes (active)	—
C-2	E. minimus	0010	♀	A	44	pregnant	—
A-3	E. minimus	0030	♀	A	34	inactive	—
A-4	P. maniculatus	0024	♂	A	25	active swollen testes	—
C-7	P. maniculatus	0014	♂	A	20	inactive	mite between eyes
A-11	Spermophilus tridecemlineatus	0021	♂	A	61	swollen testes	—
C-12	E. minimus	3000	♀	A	32	inactive	mites on face

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

C.3.1.2.3 -14

Sagebrush (Flat / 6500')

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Boothill~~ Sage Grid # 2 Project 83 Trap Night #4

Date, time traps set (1000) 24 May 75 Date, time traps checked 25 May 75 (0900)

Last toe clip # used on previous day 0024 Field Analyst(s) Sanz, Rick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight grams	Reprod. Status	Additional Notes*
A-1	E. minimus	0025	♂	A	36	inactive	—
A-3	P. maniculatus	0031	♀	A	29	"	—
A-9	E. minimus	0032	♂	A	32	"	—
A-13	E. min.	0100	♂	A	32	"	mites
B-5	P. man.	0014	♀	A	33	pregnant	—
C-1	P. man	0022	♂	A	22	inactive	—
C-2	E. min.	0040	♂	A	33	desc. testes	—
C-5	P. man	0024	♂	A	21	inactive	
C-7	P. man	0033	♀	A	21	"	—
C-9	E. min.	0030	♀	A	36	"	—
C-13	E. min	3000	♀	A	31	"	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Sagebrush (Flat / 6500)

Grid Name ~~Boothill sage~~ Grid # 2 Project 83 Trap Night # 5

Date, time traps set 25 May 75 (0900) Date, time traps checked 26 May 75 (0800)

Last toe clip # used on previous day 0033 Field Analyst(s) Sang, Kestrel

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight grams	Reprod. Status	Additional Notes*
A-3	E. minimus	0040	♂	A	35	inactive	—
A-10	E. min	1000	♀	A	40	lactating	—
A-11	S. tridecemlineatus	0021	♂	A	60	desc testes	—
A-12	S. tridec.	0035	♀	A	54	inactive	—
C1	E. min	0005	♂	Ad	29	inactive	—
C2	S tridec.	0015	♀	Ad	61	inactive	—
C5	P. maniculatus	0024	♂	Ad	22	inactive	—
C7	P. man.	0014	♂	Ad	19	inactive	—
C8	E. min.	0032	♂	Ad	29	inactive	—
C13	E. min.	0034	♂	Ad	39	active	swollen testes
B5	P. man.	0022	♂	Ad	23	inactive	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Rabbitbrush (Flat | 6B01') Grid # 3 Project 83 Trap Night 1

Date, time traps set 5/18/75 1030 Date, time traps checked 5/19/75 1430

Last toe clip # used on previous day 143? - DEC Field Analyst(s) Turner / Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight	Reprod. Status	Additional Notes*
C-13	E. minimus	0016	♀	Ad	30 gm	inactive	—
C-12	E. minimus	0301	♂	ad	33	"	—
C-11	E. min	0300	♀	ad	41	"	—
C-10	P. man	2000	♂	Ad	23	"	2000 = probably a red. mark. [illegible] next [illegible]
C-9	E. min	2000	♀	ad	42	"	—
C-7	E. min	0304	♀	ad	34	"	—
C-6	P. man	1435	♂	ad	19	"	—
C-5	E. min	0011	♀	ad	48	active	Preg
C-2	P. man	1430	♀	ad	20	inactive	—
C-1	P. man	1441	♂	ad	20	"	—
B-4	E. min	1442	♂	ad	31	"	—
B-5	E. min	1443	♂	ad	20	"	—
B-6	P. man	1444	♂	ad	17		
B-9	E. min	0200	♂	ad	28	active	swollen testes

*Key taxonomic characters, physical condition of animal, etc.

RECOP PROGRESS REPORT

C. 5.1.2.1 -12

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Rabbit Brush (Flat | 6800') Grid # 3 Project 83 Trap Night 1

Date, time traps set 1030 5-18-75 Date, time traps checked 1430 5-18-75

Last toe clip # used on previous day 1245 (Dec.) Field Analyst(s) T. Pick - T. TURNER.

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight	Reprod. Status	Additional[*] Notes
A13	E. MIN.	0204	F	Ad.	43 gms.	INACT.	Near death - fur wet.
A12	P. MAN ?	1251	F	Ad.	19 gms.	INACT.	— EAR 14 T. 60 R.FT. 2[illegible]
A11	E. MIN	0030	F	Ad.	35 gms	INACT	injured rear leg
A9	P. MANI.	1225	M	Ad.	19 gms	INACT.	—
A7	E. MIN.	3000	F	Ad.	49 gms.	INACT.	—
A4	P. MAN.	0003	M	Ad.	25 gms	INACT	—
A3	E. MIN	0403	F.	Ad.	35 gms	INACT	Tick behind Right eye.
A2	E. MIN.	4000	M	Ad.	31 gms.	INACT.	—
A1	E. MIN.	0012	M	Ad.	31 gms	Active	Swollen testes

[*] Key taxonomic characters, physical condition of animal, etc.

C. 5.1.2.7 -13

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET
(Flat / 6800')

Grid Name RABBitBrush Grid # 3 Project 83 Trap Night 2

Date, time traps set 5/19/75 1430 Date, time traps checked 5/20/75 1130

Last toe clip # used on previous day 1444 Field Analyst(s) Turner / Reyes

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional* Notes
C-13	E. minimus	~~4000~~	♂	Ad	32	inactive	—— use 4500 in analysis
C-12	P. man	1445	♀	ad	16	inactive	——
C-11	E. min	0405	♂	ad	29	"	—
C-10	E. min	1451	♀	ad	28	"	—
C-8	P. man	1452	♂	ad	17	"	—

*Key taxonomic characters, physical condition of animal, etc.

BROSP PROGRESS REPORT

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name RABBITBRUSH (Flat/6800) Grid # 3 Project 83 Trap Night 2

Date, time traps set 5/19/75 1430 Date, time traps checked 5/20/75 1130

Last toe clip # used on previous day 1251 Field Analyst(s) Reyes

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
A-11	Eutamias minimus	-	-	-	-	-	escape
B-10	E. minimus	2000	♀	adult	42 g	inactive	none
B-9	P. maniculatus	1252	♀	adult	20 g	active	pregnant
A-9	P. maniculatus	1253	♂	adult	19 g	inactive	none
B-8	P. maniculatus	1415	♂	adult	20 g	active	testes swollen
A-7	E. minimus	4455	♂	adult	-	-	Dead in trap
A-6	P. maniculatus	1254	♂	adult	26 g	active	testes swollen
B-6	E. minimus	1432	♂	adult	29 g	active	testes swollen
B-5	E. minimus	1255	♂	adult	37 g	active	testes swollen
A-4	E. minimus	0304	♂?	adult	31 g	inactive	none
B-4	P. maniculatus	0003	♂	adult	18 g	active	none
A-1	E. minimus	1311	♀	adult	30 g	inactive	none
C-12	P. maniculatus	1312	♂	adult	17 g	active	none
C-3	P. maniculatus	1441	♂	adult	19 g	active	none
C-4	E. minimus	0011	♀	adult	47 g	active	pregnant
C-5	E. minimus	0403	♀?	adult	34 g	inactive	none
C-6	E. minimus	0103	♂	adult	32 g	active	swollen testes
C-7	P. maniculatus	1313	♂	adult	17 g	inactive	none

* Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

C.5.1.2.1-15

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name RABBITBRUSH (Flat / 6800') Grid # 3 Project 83 Trap Night #3

Date, time traps set 5/20/75 1130 Date, time traps checked 5/21/75 1500

Last toe clip # used on previous day 1452 Field Analyst(s) Sanz

QA Check JB

all traps left closed bag wt = 12 gr.

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight grams	Reprod. Status	Additional Notes*
C-1	Eutamias minimus	0103*	♀	A	N/A	inactive	dead
C-3	Peromyscus maniculatus	1441	♂	A	18	"	——
C-4	E. min.	0011	♀	A	48	pregnant	unconscious.
C-5	E. min.	0305	♂	A	30	active	swollen testes
B-6	E. min.	4000*	♂	A	N/A	inactive	dead
C-7	E. min	~~0103~~*	♂	A	N/A	active	use 5103 in analysis. swollen testes (unconscious)
C-9	E. minimus	0200	♂	A	N/A	inactive	unconscious
B-9	E. min	1442	♂	A	N/A	active	swollen testes
C-10	E. min	1451	♀	A	N/A	inactive	unconscious
B-10	E. min	0400	♂	A	N/A	inactive	dead
C-11	P. man	2000	♂	A	20	"	unconscious
C-12	E. min	~~4000~~*	♂	A	N.A.	"	dead use 4500 in analysis
C-13	E. min	0405	♂	A	N/A	"	dead
A-11	E. min	0300	♀	A	N/A	active	pregnant (dead)
A-9	P. man	1450	♀	A	~~~	~~~	escaped
A-7	P. man	1254	♂	A	20	inactive	——
A-5	E. min	0304	♀	A	N/A	"	dead
A-4	P. man	1490	♀	A	17	"	unconscious.
A-3	P. man	0003	♂	A	N/A	"	dead
A-1	P. man	1302	♂	A	17	active	unconscious

* different animals

*Key taxonomic characters, physical condition of animal, etc.

35% mortality

C. 5.1.2.7 - 16 192

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Rabbitbrush (Flat | 6800) Grid # 3 Project 83 Trap Night 4

Date, time traps set 5/24/75 12 Am Date, time traps checked 5/25/75 11:45 Am

Last toe clip # used on previous day 1452 Field Analyst(s) McGuire/Reyes

QA Check jrb

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight	Reprod. Status	Additional Notes*
A-13	P. man	1453	♀	ad	19 gm	inact	—
A-9	P. man	1225	♂	ad	16 gm	act	Testes descended
A-7	P. man	1454	♀	ad	17 gm	act	vag open
A-1	E. min	1311	♂	ad	26 gm	inact	nearly dead in Trap
C-4	P. man	1455	♀	ad	15 gm	inact	—
B-6	E. min	0403	♀	ad	37 gm	inact	—
B-9	P. man	1253	♀	ad	20 gm	act	vag open
B-10	S. lateralis	1021	♀	Ad	177 gm	act.	lactating ♀

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

C. 5.1.2.1 - 11

2 of 2.

(Flat | 6800) SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Rabbitbrush Grid # 3 Project 83 Trap Night 4

Date, time traps set 5/24/75 12AM Date, time traps checked 5/25/75 11:45

Last toe clip # used on previous day 1313 Field Analyst(s) [illegible] / D. McG.

bag - 14g QA Check

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
C-13	P. man.	1314	♀	Ad	18 g	inactive	none
C-12	E. min	1315	♂	Ad	33 g	inactive	none
C-11	P. man	1321	♀	Ad	23 g	inactive	none
C-10	S. lateralis	1331	♂	Ad	60 g	inactive	none
C-7	P. man.	1254	♂	Ad	22 g	active	swollen testes
C-5	E. min	1255	♂	Ad	29 g	inactive	none
B-8	S. lateralis	1350	♂	Ad	68 g	active	swollen testes toe clip was 0050

*Key taxonomic characters, physical condition of animal, etc.

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RBCSP PROGRESS REPORT

(Flat | 6800') C.5.1.2.7 -18 192.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Rabbitbrush Grid # 3. Project 83 Trap Night 5

Date, time traps set 5/25/75 12AM Date, time traps checked 5/25/75 11:15 AM

Last toe clip # used on previous day 1321 Field Analyst(s) McGuire / Peck

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional* Notes
C-13	E. min	1315	♂	ad	32 gm	inactive	—
C-12	E. min	1322	♂	ad	31 gm	"	—
C-11	P. man	1345	♀	ad	22 gm	inactive	—
C-9	S. lateralis	1323	♂	ad	151 gm	inactive	
B-10	E. min	1324	♂	ad	31 gm	"	
B-9	P. man	1253	♀	ad	21 gm	active	vag open
E-5	P. man	1332	♂	ad	20 gm	inactive	— (2 in 1 trap)
C-5	P. man	1455	♀	ad	19 gm	"	(2 in 1 trap)

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

C.5.1.2.7-19

(Flat / 6800')

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Rabbitbrush Grid # 3 Project 83 Trap Night 5

Date, time traps set 5/25/75 12 AM Date, time traps checked 26-May 75 (1115)

Last toe clip # used on previous day 1455 Field Analyst(s) Tom Rich

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight (in gm)	Reprod. Status	Additional Notes*
A-13	Eutamias minimus	0203	♀	A	28	inact.	—
A-12	" "	0030	♀	A	38	preg.	—
A-11	P. man.	1032	♂	A	18	inact.	—
A-9	E. min.	2000	♀	A	34	inact.	—
C-4	P. man.	1424	♀	A	22	inact.	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Pinyon-Juniper / Mixed Brush (North slope / 7400')

Grid Name ~~Tower PJ & Brush~~ Grid # 4 Project 83 Trap Night 1

Date, time traps set 1700 5-18-75 Date, time traps checked 1545 5-19-75

Last toe clip # used on previous day 4000 Field Analyst(s) Tom Pick / W.T. Turn

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
A 12	P. MAN	0011	F	Ad.	25 gm	UNACTIVE	—
C 13	E. MIN.	—	E S	C A	P E D	—	—
C 11	E. MIN	0012	M	Ad.	33 gm	ACTIVE	— swollen testes
C 10	P. MAN.	0013	M	Ad.	23 gm	NONACT.	several ticks on head.
C 6	P. MAN	0030	F	Ad.	25	NONACT.	—
C 5	E quadrivittatus	0014	F	Ad.	81 gm.	ACT.	swollen vulva

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Pinyon-Juniper/Mixed Brush (North Slope/7400')

Grid Name Tower P-5/Brush Grid # 4 Project 83 Trap Night 1

Date, time traps set 5/18/75 1700 Date, time traps checked 5/19/75 1545

Last toe clip # used on previous day 0140 Field Analyst(s) Turner/Bitch

DCL QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight	Reprod. Status	Additional Notes*
B-10	P. man	0103	♂	Ad	15 gm	active	swollen testis
B-9	E. min	0150	♂	ad	30	"	" "
B-8	E. min	escaped					
B-7	E. min	0151	♀	ad	41	inactive	—
B-5	E. min	0305	♂	ad	32	"	—
A-5	P. man	0152	♂	ad	23	"	—
A-4	P. ma	0153	♀	ad	24	"	—
A-3	P. man	0154	♂	ad	20	"	—
A-2	E. min	0002	♀	Ad	34	"	—
C-1	P. man	0155	♀	ad	19	"	—
C-3	P. ma	0210	♂	ad	32	inactive	—

*Key taxonomic characters, physical condition of animal, etc.

C. 3.1.2.10 - 13

1 OF 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Pinyon-Juniper / Mixed Brush (North slope / 7400')

Grid Name ~~Tower P-J / Brush~~ Grid # 4 Project 83 Trap Night 2

Date, time traps set 5/19/75 1545 Date, time traps checked 5/20/75 1015

Last toe clip # used on previous day 0210 Field Analyst(s) Turner

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
B-10	P. man	0152	♂	Ad	20 gm	inactive	—
B-9	P. man	0013	♂	ad	21	"	—
A-8	E. min.	0220	♂	ad	35	active	swollen testes
A-7	E. min	0100	♂	ad	29	"	"
A-5	E. min	0305	♂	ad	30	inactive	—
A-4	P. man	0153	♀	ad	21	"	
A-3	P. man	0154	♂	ad	16	"	
A-2	E. min	0002	♀	ad	35	"	
C-1	P. man	(0150)	♀	ad	20	"	→ P. man marked wrong
C-2	E. min	(0150)	♂	ad	29	active	swollen testes
C-3	P. man	0210	♂	ad	23	inactive	
C-6	P. man	0030	♀	ad	15	"	
C-10	P. man	0230	♀	ad	19	"	
C-13	P. man	0011	♀	ad	21	"	
A-12	P. man	0240	♀	ad	22	"	
A-11	E. min	0250	♂	ad	29	active	swollen testes (cold)

*Key taxonomic characters, physical condition of animal, etc.

RBCSP PROGRESS REPORT

C. 5.1.2.10 - 14

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Tower P-3 / Brush~~ Pinyon-Juniper / Mixed Brush (North slope / 7400') Grid # 4 Project 83 Trap Night 3

Date, time traps set 5/20/75 1015 Date, time traps checked 2:45 PM 5/21/75

Last toe clip # used on previous day 0015 Field Analyst(s) McCune / Kestrel

QA Check JB

all traps left closed

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ animal Weight in gm	Reprod. Status	Additional Notes*
A-13	P. man	0152	♂	ad	20 gm	inact	dead in trap
A-12	E. min	0021	♀	ad	35 gm	inact	" " "
A-11	E. min	0022	♂	ad	30 gm	active	testes extended / dead
A-9	E. min	0023	♂	ad	31 gm	"	" " "
A-7	M. ~~ermmia~~?	0024	♂	ad	53 gm	active	" " dead in trap
A-5	E. min	0100	♂	ad	27 gm	inact	dead in trap
A-3	E. min	0110	♂	ad	32 gm	act	testes extended
A-2	E. min	0002	♀	ad	33 gm	inact	dead in traps
B-7	P. man	0230	♀	ad	14 gm	act	vag open
B-10	P. man	0013	♂	ad	17 gm	inact	
C13	E. min	0250	♂	Ad	29	dis testes	dead
C 8	E. min	0150	♂	Ad	30	inact	dead
C 7	E. quad	0301	♂	Ad	49	"	→
C6	towhee	~~[illegible]~~				—	
C5	E. quad	0320	♂	Ad	51	dis testes	—
C4	P. man.	0150	♀	Ad	24	inact	— —
C3	E. min	0330	♂	Ad	29	dis testes	dead
C2	E. min	0340	♀	Ad	34	inactive	dead
B8	E. min.	0220	♂	Ad	34	dis testes	—
B9	E. min	0305	♂	Ad	28	inact	dead
C9	S. lateralis	0350	♂	Ad	181	"	—

* Key taxonomic characters, physical condition of animal, etc.

RBOSP PROCESS REPORT 50% mortality 12/21

C. 5.1.2.10 - 15

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Tower PJ~~ / ~~Brush~~ Pinyon - Juniper / Mixed Brush (North Slope / 7400') Grid # ______ Project 83 Trap Night 4

Date, time traps set 5/24/75 1PM Date, time traps checked 5/25/75 1PM.

Last toe clip # used on previous day 0350 Field Analyst(s) McGuire / Bayes

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ animal Weight	Reprod. Status	Additional Notes*
C-13	P. man	3000	♂	ad	17 gm	active	testes descended
C-12	P. man	0011	♀	ad	20 gm	active	vag open
C-11	E. min	0012	♂	ad	30 gm	active	~~testes~~ descended
C-7	P. man	0153	♀	ad	20 gm	active	vag open
C-6	E. quad	0301	♂	ad	49 gm	inact	(HF = 31 mm)
C-5	P. man	0030	♀	ad	17 gm	inact	–
C-4	P. man	0210	♂	ad	19 gm	inact	–
C-1	P. man	0150	♀	ad	17 gm	inact	–
C-2	P. man	0154	♂	ad	19 gm	act	testes descended

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

C. 5.1.2.10-16

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Pinyon Juniper/Mixed Brush (North slope / 7400')

Grid Name ~~Tower PJ / Brush~~ Grid # ______ Project 83 Trap Night 4

Date, time traps set 5/24/75 1PM Date, time traps checked 5/25/75 1300

Last toe clip # used on previous day 0024 Field Analyst(s) GAR

QA Check DB

Bag → 14g

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
A-11	E. minu	0025	♀	Ad	36g	inactive	Almost dead.
A-10	E. min.	0220	♂	Ad	34g	active	swollen testes
A-1	E. min	0130	♂	Ad	34g	inactive	None
B-4	E. min	0140	♂	Ad	35g	active	swollen teste.

*Key taxonomic characters, physical condition of animal, etc.

Caught 5 Green tailed Towhee

Pinyon-Juniper/Mixed Brush (North Slope/7400') C. 5.1.2.10-17 1 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Fence PJ/Brush~~ Grid # 4 Project 83 Trap Night 5

Date, time traps set 5/25/75 1PM Date, time traps checked 5-26-75 (1230)

Last toe clip # used on previous day 0024 Field Analyst(s) Tom Pich

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	ANIMAL ~~Trap~~ Weight IN GMS	Reprod. Status	Additional Notes*
A-12	E. min.	0012	♂	A	30	ACT.	desc. testes
A-10	"	0025	♀	A	30	INACT.	—
A-2	"	0401	♀	A	31	"	—
A-1	"	0031	♀	A	37	ACT.	Preg.
C-1	P. man	0155	♀	A	19	INACT.	—

*Key taxonomic characters, physical condition of animal, etc.

Pinyon-Juniper / Mixed Brush (North Slope / 7400') C.5.1.2.10-18

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Tower PJ / Brush~~ Grid # 4 Project 83 Trap Night 5

Date, time traps set 5/25/75 1 PM Date, time traps checked 5/26/75 12:30 PM

Last toe clip # used on previous day 0350 Field Analyst(s) McGinnis / Rich

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional* Notes
B-10	E. min	0303	♀	ad	40 gm	inact	—
B-9	E. min	0220	♂	ad	33 gm	active	testes down
C-6	P. man	0153	♀	ad	25 gm	inact	—
C-4	E. quad	0014	♀	ad	62 gm	active	lactating (HF=33 mm)
C-2	E. min	0410	♂	ad	33 gm	inact	nearly dead in trap

*Key taxonomic characters, physical condition of animal, etc.

(North slope / 7200') C. 3.1.2.11 -12

1 of 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Tract~~ Mixed Brush Grid # 5 Project 83 Trap Night 1

Date, time traps set 5/18/75 (1530) Date, time traps checked 5/19/75 (1755)

Last toe clip # used on previous day 0042 Field Analyst(s) Kestrel, Sanz

Bag weight = 11 gr. (— = inactive) QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional* Notes
C1	E. minimus	0021	♂	A	46 gm	des testes	—
C2	E. min	0043	♀	A	44	←	—
C5	E. minimus	0003	♀	A	45	←	—
A7	P man	0044	♀	A	32	—	—
C7	E. min.	0004	♀	A	47	—	—
C9	E. min.	0045	♂	A	42	des. testes	—
A9	E. min	4000	♀	A	47	—	—
A10	E. min	0052	♀	A	46	—	—
C12	E. min.	0051	♀	A	44	—	—
C11	E. min	0054	♂	A	46	dest. test	—
B13	P. maniculatus	0053	♂	A	des test → 30		—
A12	E. min.	3000	♀	A	52	—	~~tick~~ mite
B10	E. min.	0040?	♂	A	42	des. ~~testes~~ testes	~~toe clip~~ toe clip # uncertain, should be checked agains old da

*Key taxonomic characters, physical condition of animal, etc.

UBOSP ... REPORT

(North slope 7200') C. 5.1.2.11 - 15

1 of 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Fract~~ Mixed Brush Grid # 5 Project 83 Trap Night #2

Date, time traps set 19 May 75 (1755) Date, time traps checked 20 May 75 (1530)

Last toe clip # used on previous day 0053 Field Analyst(s) Sang, Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
C-3	E. minimus	0003	♀	A	38 gms	inactive	———
C-5	E. min	0055	♂	A	32	"	———
C-7	E. min	0004	♀	A	46	pregnant	———
C-8	E. min	4000	♀	A	38	inactive	———
C-9	E. min	~~~	~~~	~~~	~~~	~~~	escaped from back of trap
C-13	E. min	3000	♀	A	39	inactive	———
B-10	P. maniculatus	0103	♂	A	18	"	———
A-1	E. min	0032	♂	A	26	"	———
A-2	P. man	0054	♂	A	18	"	———
A-6	E. min	0300	♂	A	34	dist. test.	———
B-9	E. min	0013	♀	A	40	inactive	———
A-10	E. min	0101	♀	A	48	pregnant	———
A-13	P. man	0102	♂	A	21	inactive	———

*Key taxonomic characters, physical condition of animal, etc.

REOSP PROGRESS REPORT

(North Slope / 7200) C.5.1.2.11 - 14

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Front~~ Mixed Brush Grid # 5 Project 83 Trap Night #3

Date, time traps set 5/20/75 (1530) Date, time traps checked 1:30 pm 5/21/75

Last toe clip # used on previous day #0103 Field Analyst(s) Kirtel / McGuire

QA Check JB

all traps closed

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
C-1	E. min	0043	♀	ad	37g	inact	dead in trap.
C-3	E. min.	0025	♂	ad	28 g	active	testes extended
C-4	E. min	0004	♀	ad	40g	inact	dead in trap
C-7	E. min	1000	♂	ad	35g	"	" " "
C-9	E. min	0300	♂	ad	35g	inact	
C-12	E. min	0054	♂	ad	36g	active	testes extended / dead in
C-13	P. man	0103	♂	ad	15g	inact	dead in trap
A-1	E min	0012	♂	ad	39gm	"	dead
A-4	E min	0045	♂	ad	36 gm	dist testes	dead
A-13	E.min	0051	♀	ad	38gm	inact	dead
B-10	E.min	0104	♂	ad	33 gm	dist testes	—
B-9	E.min	0055	♂	ad	35gm	" "	—
B-[illegible]	E min	0013	♀	ad	36gm	inactive	escaped-caught!
B-6	E min	4000	♀	ad	37gm	"	

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT 77 mortality

C. 5.1.2.11 - 15 1 of 1

(North Slope / 7200') SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Fract Mixed Brush Grid # 5 Project 83 Trap Night #4

Date, time traps set 24 May 75 (1400) Date, time traps checked 25 May 75 (1200)

Last toe clip # used on previous day 0104 Field Analyst(s) Sanz, Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight grams	Reprod. Status	Additional Notes*
A-2	E. minimus	0021	♂	A	35	desc. testes	—
A-4	E. min	0201	♀	A	35	inactive	—
A-6	" "	0055	♂	A	36	desc. testes	—
A-7	P. maniculatus	0202	♀	Juv.	14	inactive	—
A-12	" "	0204	♀	A	24	"	—
A-13	E. min	0104	♂	A	28	desc. testes	—
B-10	" "	0301	♂	A	34	" "	—
B-7	" "	0302	♀	A	38	inactive	—
B-8	P. man.	0303	♂	A	26	"	—
B-8	P. man	0053	♂	A	20	"	—
C-13	" "	0205	♀	A	21	"	—
C-11	E. min.	3000	♀	A	40	"	—
C-[illegible]	" "	0054	♂	A	30	desc. testes	—
C-7	P. man.	0203	♂	A ?	15	inactive	—
C-6	E. min	4000	♀	A	39	pregnant	—
C-5	" "	0003	♀	A	41	pregnant	—
C-3	E. min.	0032	♂	A	26	inactive	—
C-1	P. man	0105	♀	A	25	"	—

*Key taxonomic characters, physical condition of animal, etc.

C. 5.1.2.11-16 1 of 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Tract~~ Mixed Brush (North Slope/7200') Grid # 5 Project 83 Trap Night #5

Date, time traps set 25 May 75 (1200) Date, time traps checked 26 May 75 (1200)

Last toe clip # used on previous day 0303 Field Analyst(s) Sany, Kestrel

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight grams	Reprod. Status	Additional Notes*
A-2	E. minimus	0032	♂	A	27	inactive	—
A-7	E. mini	4000	♀	A	37	"	suffering from exposure
A-8	E. min	0300	♂	A	32	desc. testes	
A-12	E. min	3000	♀	A	38	inactive	Dead
B-10	P. maniculatus	0205	♀	A	20	"	—
B-8	P. man	0044	♀	A	21	"	—
C-8	E. min	0021	♂	Ad	31	active	swollen testes
C-5	E. min	0025	♂	Ad	31	active	swollen tests
C-7	E. min	0201	♀	Ad	35	inactive	—
C-8	P. man	0203	♂	Juv	15	inactive	—
C-9	P. man	0303	♂	Ad	16	active	swollen testes
C10	P. man	0304	♀	Juv.	15	inactive	—
C-3	P man	0402	♀	Ad	20	inactive	—
B 6	E min	0401	♀	Ad	35	inactive	—

* Key taxonomic characters, physical condition of animal, etc.

REOSP PROGRESS REPORT

Pinyon-Juniper/Sagebrush (Flat/7400') C. 5.1.2.12-12

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Horse P J~~ Grid # 6 Project 83 Trap Night 1

Date, time traps set 5/18/75 (2000) Date, time traps checked 5/19/75 (2005)

Last toe clip # used on previous day 0035 Field Analyst(s) Kestiel, Sanz

bag wt 12

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
A1	E. minimus	0041	♀	A	48 gm	—	—
A3	E. mini.	0042	♂	A	44	des testes	—
A5	P. maniculatus	0043	♀	A	38	preg.	—
A10	E. min	0044	♂	A	44	des testes	—
A13	P. man	0045	♀	A	31	—	mites
B10	P. man	0020	♀	A	33	—	—
B8	P. man	0101	♀	A	31	—	—
B7	P. man	0051	♂	A	29	—	very sluggish
B6	P. man	0002	♀	A	30	—	—
C2	P man	0034	♀	A	34	—	—
C8	P man	2000	♀	A	40	—	—
C12	P man	0105	♂	A	32	—	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

Pinyon-Juniper/Sagebrush (Flat/7400') C. 5.1.2.12-15

1 of 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Horse P.J./Sage~~ Grid # 6 Project 83 Trap Night #2

Date, time traps set 19 May 75 (2005 hrs) Date, time traps checked 20 May 75 (1600 hrs)

Last toe clip # used on previous day 0052 Field Analyst(s) Sanz, Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	animal ~~Trap~~ Weight	Reprod. Status	Additional* Notes
A-1	E. minimus	0053	♂	A	36 gm	dist. test.	—
A-2	E. min	0041	♀	A	35	inactive	—
A-6	P. man	0052	♂	A	23	"	—
A-8	P. man	0043	♀	A	21	giving birth	- 3 babies in trap.
A-9	P. man	0105	♂	A	~~20~~ 19	inactive	suffering from exposure
A-13	P. man	0055	♀	A	20	"	— [remark 0055]
B-10	P. man	0005	♀	A	21	"	—
C-2	P. man	0034	♀	A	25	"	—
C-3	P. man	0002	♀	A	18	"	—
B-4	S. lateralis	0054	♀	A	206	pregnant	mammaries swollen
C-4	P. man	0204	♀	A	22	inactive	—
B-6	P. man	~~0055~~	♀	A	23	"	— use 5055 in analysis
C-?	P. man	0101	♀	A	16	"	—
C-8	P. man	0102	♂	A	30	"	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

Pinyon-Juniper/Sagebrush (Flat/7400')   C. 5.1.2.12-14

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Horse P.J.~~/SAGE Grid # 6 Project 83 Trap Night # 3

Date, time traps set 20 MAY, 75 (1600 hrs) Date, time traps checked 5/21/75 (1830)

Last toe clip # used on previous day 0105 Field Analyst(s) McGuire/Cashel

all traps closed   QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ animal Weight	Reprod. Status	Additional Notes*
B-8	P. min	0042	♂	ad	33 gm	active	testes extended
B-7	P. man	0052	♂	ad	21 gm	active	" "
A-2	Perognathus parvus	0201	♂	ad	13 gm	inactive	dead in trap.
C-2	P. man	0034	♀	ad	29 gm	active	pregnant
C-4	P. man	0002	♀	ad	23 gm	inactive	—
C-6	P. man	0104	♀	ad	24 gm	"	dead —
C-10	P. man.	0005	♀	Ad	20 gm	"	dead -
B-10	P. man	0040	♂	Ad	18	"	—
A-13	P. man.	0020	♀	Ad	20	"	dead -
C-13	E. min	1030	♂	Ad	29	"	dead
C-12	E. min	0400	♂	Ad	30	"	—
C-11	E min.	1040	♂	Ad	32	distinctly	—

*Key taxonomic characters, physical condition of animal, etc.

31. = 2.5 ?

Pinyon-Juniper/Sagebrush (Flat 7400')   C. 5.1.2.12-15   1 of 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Horse P.J. / sage~~ Grid # 6 Project 83 Trap Night #4

Date, time traps set 24 May 75 / (1600) Date, time traps checked 25 May 75 (1600)

Last toe clip # used on previous day 0201 Field Analyst(s) Pick, Sang

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	ANIMAL ~~Trap~~ Weight IN GMS	Reprod. Status	Additional Notes*
A-2	Peromyscus, MAN.	0202	♀	A	20	INACT.	—
A-3	" "	0002	♀	A	19	"	—
A-8	" "	0043	♀	A	19	"	— Possibly P. truei - ears 19
A-10	" "	0045	♂	A	17	"	—
A-13	E. MIN.	1040	♂	A	29	ACTIVE	Descended testes
B-9	P. Man	0301	♀	A	20	inACTIVE	—
C-2	E. minimus	0013	♂	A	30	ACTIVE	desc. testes
C-3	P. man	0104	♀	A	18	INACTIVE	—
C-4	P. man.	0052	♂	A	20	desc. test	—
C-8	E. min	0203	♂	A	36	"	—
C-10	Perognathus apache	0204	♂	A	15	"	—
C-11	P. man	0101	♀	A	13	—	—
C-[illegible]	"	0205	♂	A	21	—	—
B-10	E. MIN.	0044	♂	A	29	dest. test.	—
B-6	P. MAN.	1055	♂	A	18	—	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

Pinyon - Juniper / Sage brush (Flat 7400') 6.5.1.2.12-16

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Horse Pt / Sage~~ Grid # 6 Project 83 Trap Night #5

Date, time traps set 25 May 75 (1500) Date, time traps checked 26 May (1730)

Last toe clip # used on previous day 0301 Field Analyst(s) Sanz, Kestrel

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight grams	Reprod. Status	Additional* Notes
C-2	E. minimus	0053	♂	A	30	inactive	—
C-7	P. maniculatus	0104	♀	A	19	"	—
C-12	E. min	0400	♂	A	27	"	—
A1	E. min	0302	♂	Ad	30	active	swollen testes
A2	E min	0303	♀	Ad	32	inactive	—
A3	P man	0052	♂	Ad	18	"	—
A7	E min	0304	♂	Ad	30	"	—
A8	E min	0044	♂	Ad	29	"	—
A10	P man	0045	♂	Ad	16	"	—
B4	P man	0305	♂	Ad	22	"	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

(Flat | 8500') 5.1.2.15 -12 1 of 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Upland Meadow Grid # 7 Project 83 Trap Night 1

Date, time traps set 5/18 1530 Date, time traps checked 5/19 1900

Last toe clip # used on previous day 00-10 Field Analyst(s) J.B., C.A.R

~~start w/ 0103~~ QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
B-10	Peromyscus maniculatus	0050	♀	Ad.	24-12 (12)	inactive	body 65 mm
A-7	P. maniculatus	0100	♂	Adult	34-12 (22)	inactive	with parasites (~~[illegible]~~) mite
A-4	P. maniculatus	0200	♂	Adult	35-12 (23)	inactive	none
C-13	P. maniculatus	0300	♂	Adult	32-12 (29)	inactive	none

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

(Flat 8500')

5.1.2.13-13

1 of 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Upland Meadow Grid # 7 Project 83 Trap Night 2

Date, time traps set 5/19/75 (1800) Date, time traps checked 5/20/75 (1515)

Last toe clip # used on previous day 0300 Field Analyst(s) Kestrel

QA Check JB

bag weight 13 gm

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ animal Weight gm	Reprod. Status	Additional Notes*
C4	P. maniculatus	0300	♂	A	~~33~~ 21	inactive	—
C5	P. maniculatus	0400	♂	A	~~35~~ 23	inactive	—
A-4	P. maniculatus	1000	♂	A	~~33~~ 21	inactive	—
B-7	P. maniculatus	1400	♂	A	~~36~~ 24	swollen testes	was 0400, changed to 1400 (different animal from C5 above
A-7	P. maniculatus	0200	♂	A	~~35~~ 23	inactive	—
B-10	P. maniculatus	2000	♀	A	~~28~~ 16	inactive	—

*Key taxonomic characters, physical condition of animal, etc.

RDOSP PROGRESS REPORT

(Flat | 8500') 5.1.2.13 -14 1 of 1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Upland Meadow Grid # 7 Project 83 Trap Night 3

Date, time traps set 5/20/75 (1515) Date, time traps checked 5-21-75 (1630)

Last toe clip # used on previous day 2000 Field Analyst(s) J. Baker

QA Check JB

all traps closed

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ animal Weight	Reprod. Status	Additional Notes*
C-10	P. maniculatus	2000	♀	A	15 gr	inact.	—
C-9	P. man	1100	♂	A	22	"	—
C-5	P. man	0300	♂	A	20	"	—
A-4	P. man	1400	♂	A	17	"	—
F 7	P. man	0200	♂	A	—	"	Dead

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

(Flat / 8500') 5.1.2.13 -15 1 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Upland Meadow Grid # 7 Project 83 Trap Night 1

Date, time traps set 5/24/75 (1730) Date, time traps checked 5/25/75 (1400)

Last toe clip # used on previous day ~~2000~~ 2000 Field Analyst(s) Kestrel

bag wt. = 8 QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	animal ~~Trap~~ Weight in gm	Reprod. Status	Additional* Notes
A-13	P. maniculatus	3000	♂	Ad	32 22	inactive	—
A-12	P. man	~~(23)000~~	♀	Ad	20	active	lactating 2000

*Key taxonomic characters, physical condition of animal, etc.

FBOSP PROGRESS REPORT

(Flat / 8500') 5.1.6.15 -16 2 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Upland Meadow Grid # 7 Project 83 Trap Night 4

Date, time traps set 5/24/75 (1730) Date, time traps checked 5/25/75 1400

Last toe clip # used on previous day 2000 Field Analyst(s) Baker

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
C-2	P. maniculatus	0103	♂	A	20	inactive	—
C-5	P. man	~~2000~~	♂	A	24	"	use 2500 in analysis
C-7	E. minimus	0104	♂	A	33	"	—
C-8	P. man	1100	♂	A	23	active	swollen testes

*Key taxonomic characters, physical condition of animal, etc.

REOSP PROGRESS REPORT

(Flat/ 8500) 5.1.2.13 -1

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Upland Meadow Grid # 7 Project 83 Trap Night 5

Date, time traps set 25 May 1975 (1400) Date, time traps checked 26 May 1975 (1430)

Last toe clip # used on previous day 3000 Field Analyst(s) SAR

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
1-13	P. man	4000	♂	Ad	22g	active	des. testes
B-9	P. man	2000	♀	Ad	18g	inactive	none
B-7	P. man	1100	♂	Ad	22g	active	des. testis
A-7	P. man	0300	♂	Ad	18g	active	des. testis

*Key taxonomic characters, physical condition of animal, etc.

RBCSP PROGRESS REPORT

(Flat / 8500') 5.1.2.13 -18 2 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Upland Meadow Grid # 7 Project 83 Trap Night 5

Date, time traps set 25 May 1975 (1400) Date, time traps checked 26 May 1975 (1430)

Last toe clip # used on previous day 0150 Field Analyst(s) J. Baker

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Trap Weight	Reprod. Status	Additional Notes*
C-5	E. minimus	0105	♂	A	—	active	swollen testes
C-8	E. minimus	0110	♂	A	—	"	" " / wrong toe clip used

*Key taxonomic characters, physical condition of animal, etc.

* Weights were not taken [illegible]

R3OSP PROGRESS REPORT

(Flat / 6400') C. 5.1.2.14 - 25

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Greasewood-Sage Grid # A Project 83 Trap Night 1

Date, time traps set 5/18/75 (0800) Date, time traps checked 5/19/75 (1200)

Last toe clip # used on previous day 1024 Field Analyst(s) Sang

bag weight = 10 grams (— = inactive) QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Weight gm (-10 animal)	Reprod. Status	Additional Notes*
B-1	P. maniculatus	1025	♀	A	~~32 gm~~ 22	—	—
C-1	E. minimus	0250	♀	A	~~48~~ 38	—	—
D-1	E. min	0350	♂	A	—	—	escapee
F-1	E. min	1031	♂	A	~~44~~ 34	dist test.	—
H-1	P. man.	0403	♀	A	~~39~~ 29	lactating	—
J-1	E. min.	0402	♀	A	~~58~~ 48	pregnant	—
K-1	E. min	1032	♂	A	~~44~~ 34	—	—
L-1	E. min	0004	♂	A	~~50~~ 40	dist. test	mites
M-1	E. min	0220	♂	A	~~42~~ 32	—	—
M-2	E. min	1000	♀	A	~~60~~ 60	pregnant	—
L-2	P. man	1033	♀	A	~~40~~ 30	pregnant	—
D-2	P. man	~~0030~~	♀	A	~~37~~ 27	lactating	use 5030 in analysis; female gave birth to 4 babies
A-[illegible]	E. min	3002	♂	A	~~44~~ 34	—	—
A-3	P. man.	1034	♀	A	~~34~~ 24	lactating	—
D-3	E. min	0040	♂	A	~~45~~ 35	—	—
K-4	E. min	1000	♀	A	~~42~~ 32	—	—
D-5	P. man	~~4200~~ 4201	♂	A	~~34~~ 24	—	— (toe clip changed on day 2)
B-4	E. min	0120	♀	A	~~54~~ 44	—	—
A-6	E. min	0130	♀	A	~~50~~ 40	—	—
B-6	E. min	1035	♂	A	~~42~~ 32	dist. test.	—
E-6	P. man	0030	♂	A	~~34~~ 24	—	—
J-4	E. min	1041	♂	A	~~43~~ 33	dist. test	—
M-6	E. min.	1200	♂	A	~~44~~ 34	dist. test	—
L-6	P. man	1042	♂	A	~~34~~ 24	—	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

(Flat/6400') c.5.1.2.14 -26

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Greasewood Sage Grid # A Project 83 Trap Night 1

Date, time traps set 5/18/75 (0800) Date, time traps checked 5/18/75 (1140)

Last toe clip # used on previous day 1202 Field Analyst(s) Kestiel

bag weight - 12gm (— = inactive) QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight (-12gm)	Reprod. Status	Additional Notes*
F13	P.maniculatus	2200	♀	A	~~33~~ 21 gm	—	—
L13	P.man	1203	♂	A	~~32~~ 21	—	—
M13	E.minimus	3001	♂	A	~~42~~ 30	—	—
K12	E.min.	1300	♂	A	~~43~~ 31	—	stake is mismarked OK
~~H~~ 12	P.man	0301	♀	A	~~34~~ 22	—	—
C12	E.min	0202	♀	A	~~46~~ 34	—	—
B12	P.man.	1253	♂	A	~~35~~ 23	—	was previously marked 1203 not same animal capt. L13
A12	P.man	1204	♂	A	~~34~~ 22	—	—
C11	S.lateralis	1205	♂	A	— escaped	—	—
~~K11~~							trap missing found dead
I10	E.min	0033	♀	A	~~28~~ 16	—	
D-9	E.min	1211	♂	A	~~48~~ 36	swollen testes	—
J 9	E.min	0055	♀	A	~~56~~ 44	—	—
G 8	P.man	1301	♂	A	~~32~~ 20	—	—
B8	E.min	01(2)01	♂	A	~~42~~ 30	swollen testes	~~tick~~ mite
A8	E.min	0105	♀	A	~~43~~ 31	—	mites

*Key taxonomic characters, physical condition of animal, etc.

(Flat/6400') C. 5.1.2.14 -27 1of2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Greasewood - sage Grid # A Project 83 Trap Night #2

Date, time traps set 19 May 75 (1200 hrs) Date, time traps checked 20 May 75 1000 hrs

Last toe clip # used on previous day 1302 Field Analyst(s) T. Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
A 12	P. man	1303	♂	Ad.	23 gm.	inact.	—
A 13	P. man.	1304	♀	Ad.	23 gm.	inact	—
B 13	P. man.	1305	♀	Ad.	19 gm.	inact	—
F 13	E. min.	~~0202~~*	♂	Ad.	29 gm	inact	* use 5202 in analysis
I 13	Spermophilus lateralis	1401	♂	Ad	139 gm.	inact.	—
L-13	P man.	1301	♂	Ad.	19 gm.	inact.	—
M 12	P. man.	1402	♀	Ad.	19 gm.	inact.	—
L-12	P. man.	1403	♂	Ad.	21 gm.	inact.	—
I-12	P. man	6301	♀	A.	20 gm.	inact.	—
F-12	E. min.	0202	♀	A	34 gm	inact.	—
D 12	P. man	2200	♀	A	20 gm.	inact.	—
C 12	P. man.	1253	♂	A	23 gm.	inact	—
B [illegible]	P. man.	1204	♂	A	22 gm	inact	—
H-8	P. man.	1240	♂	A	22 gm.	inact.	—
K8	E. min.	1300	♂	A	31 gm.	ACT.	— swollen testes
B8	E. min.	— ESCAPED —					—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

(Flat/6400')

C 5.1.2.14-28

2 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Greasewood sage Grid # A Project 83 Trap Night #2

Date, time traps set 19 May 75 (1140 hrs) Date, time traps checked 20 May 75 1000 hrs

Last toe clip # used on previous day 1042 Field Analyst(s) Sang

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
B-1	E. minimus	0350	♂	A	32 gms	dist. testes	—
C-1	E. min	0250	♀	A	40	~~inactive~~	—
D-1	E. min	3050	♂	A	34	dist. testes	—
F-1	P. man	1043	♂	A	18	inactive	—
G-1	E. min	1044	♂	A	35	dist. test.	—
K-1	—	—	—	—	—	—	escaped through trap
L-1	P. man	0420	♂	A	22	inactive	—
M-1	E. min	0220	♂	A	31	"	—
L-2	P. man	1033	♀	A	28	lactating	—
H-2	P. man	1004	♀	A	31	pregnant	—
F-2	P. man	4201	♂	A	20	inactive	♂ P.m Δ #1200 to 4201
A-2	E. min	0095	♂	A	30	inactive	mites (should be 1045) Δ
K-3	E. min	1051	♀	A	41	"	—
K-4	E. min	1041	♂	A	33	dist. test.	—
D-4	P. man	0030	♂	A	19	inactive	—
A-6	E. min	0120	♀	A	42	"	—
B-6	E. min	0105	♀	A	31	"	—
C-6	E. min	1052	♂	A	36	dist. test.	—
M-4	E. min	1032	♂	A	30	inactive	—
M-6	E. min	1200	♂	A	31	"	—
I-5	E. min	4000	♀	A	30	"	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

(Flat/6400') C. 5.1.2.14 -29 Sheet 1 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Greasewood Sage Grid # A Project 83 Trap Night #3

Date, time traps set 20 MAY, 75 (1000hrs) Date, time traps checked 5/21/75 1730

L[illegible] toe clip # used on previous day 1052 Field Analyst(s) R. Sanz, G. Reyes

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal grams ~~Trap~~ Weight	Reprod. Status	Additional Notes*
A-1	E. minimus	0045	♂	A	37	inactive	~~mite on left shoulder~~ (necro)
A-2	E. minimus	1053	♂	A	30	inactive	—
B-2	E. minimus	0040	♂	A	36	active swollen testes	has mites
C-1	E. minimus	3050	♂	A	30	inactive	—
D-1	E. minimus	1054	♂	A	31	active	~~Swollen~~ testes
H-2	P. maniculatus	1004	♀	A	20	active	in process of parturition she ate babies (4)
F-1	P. maniculatus	1055	♂	A	21	active swollen testes	—
J-2	E. minimus	0350	♂	A	33	active swollen testes	—
J-1	P. maniculatus	0403	♀	A	28	lactating	—
L-1	E. minimus	1101	♀	A	34	inactive	~~[illegible]~~ (necro)
M-3	E. minimus	1032	♂	A	30	inactive	—
L-3	E. minimus	3000	♀	A	30	inactive	—
[illegible]-3	E. minimus	0250	♀	A	N/A	inactive	Dead
D-3	P. maniculatus	4201	♂	A	20	inactive	—
D-4	P. maniculatus	0030	♂	A	22	inactive	—
C-3	E. minimus	1052	♂	A	34	active	—
A-3	E. minimus	1002	♂	A	28	active	—
B-6	E. minimus	0120	♀	A	42	pregnant	~~nearly dead~~ (necro)
E-7	E. minimus	1014	♀	A	44	active pregnant	—
L-4	E. minimus	1041	♂	A	37	active swollen testes	—
M-8	P. maniculatus	1240	♂	A	N/A	N/A	Dead
D-10	E. minimus	1102	♀	A	40	inactive	—
B-8	E. minimus	1103	♀	A	27	inactive	has mites
B-10	E. minimus	0(1/2)01	♂	A	30	inactive	nearly dead (necro)
A-8	E. minimus	0105	♀	A	38	pregnant	has mites
B-11	E. minimus	0202	♀	A	34	inactive	~~very sluggish~~ (necro)
F-11	P. maniculatus	0301	♀	A	escaped	inactive	—
H-11	P. maniculatus	1104	♀	A	23	inactive	—
[illegible]-12	E. minimus	1300	♂	A	34	inactive	—
M-12	P. maniculatus	1402	♀	A	19	inactive	—
L-13	P. maniculatus	1203	♂	A	21	inactive	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROCESSED COPY

(Flat | 6400) C. 30 T.L. 14 - 30 Sheet 2 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Greasewood sage Grid # A Project 83 Trap Night #3

Date, time traps set 20 May, 75 (1000 hrs) Date, time traps checked 5/21/75 1900 hrs

Last toe clip # used on previous day 1403 Field Analyst(s) R. Sanz C. Reyes

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal gram ~~Trap~~ Weight	Reprod. Status	Additional Notes*
H-12	E. minimus	1035	♂	A	N/A	formerly active	—
F-13	E. minimus	~~0202~~	♂	A	31	inactive	missing half a tail & almost dead; use 5202 in analysis
D-12	P. maniculatus	0253	♂	A	24	active	—
C-13	P. maniculatus	1305	♀	A	19	enlarged vulva active	—
B-12	P. maniculatus	1204	♂	A	20	active	— very sluggish
A-13	P. maniculatus	1303	♂	A	20	inactive	—
A-12	P. maniculatus	1304	♀	A	25	inactive	—

*Key taxonomic characters, physical condition of animal, etc.

HDDSP PROGRESS REPORT

(Flat/6400'). C. 5.1.2.14-31

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Greasewood Sage Grid # A Project 83 Trap Night # 4

Date, time traps set 24 May 75 (1100) Date, time traps checked 25 May 75 (1000)

Last toe clip # used on previous day 1403 Field Analyst(s) Sanz

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight gm.	Reprod. Status	Additional Notes*
B-1	E. minimus	1404	♂	A	32	inactive	—
C-1	E. min	3050	♂	A	28	"	—
D-1	P. man	1005	♂	A	22	"	—
[illegible]-1	S. lateralis	1101	?	~~A~~	—	—	escaped from bag
J-1	P. man	~~0003~~	♀	A	24	lactating	use 0403 in analysis
M-1	E. min	0220	♂	A	30	inactive	—
L-2	P. man	1033	♀	A	26	lactating	—
F-2	P. man	1405	♂	A	21	inactive	—
B-2	P. man	1034	♀	A	22	"	—
C-3	P. man	4201	♂	A	24	"	—
D-3	E. min	1052	♂	A	28	"	—
K-3	P. man	0111	♀	A	24	lactating	—
K-[illegible]	P. man	0112	♀	A	23	inactive	—
G-5	E. min	0040	♂	A	34	"	—
G-4	P. man	1004	♀	A	20	"	—
H-5	E. min	1014	♀	A	40	pregnant	—
J-4	E. min	0113	♂	A	30	inactive	—
L-4	E. min	1041	♂	A	30	"	—
M-6	E. min	1211	♂	A	38	dec. test	—
I-5	P. man	0420	♂	A	22	inactive	—

*Key taxonomic characters, physical condition of animal, etc.

(Flat/6400') C. 5.1.2.14 - 32

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Greasewood - Sage Grid # A Project 83 Trap Night #4

Date, time traps set 24 May, 1975 (1100) Date, time traps checked 25 May 75 (1000)

~~Last toe clip # used on previous day~~ N/A Field Analyst(s) T. Pick

Begin with 0245 QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	ANIMAL ~~Trap~~ Weight IN GMS.	Reprod. Status	Additional Notes*
A-13	Peromyscus maniculatus	1304	♀	A	23	ACTIVE	open vulva
D-13	Spermophilus lateralis	1205	♂	"	175	"	desc. testes
E-13	P. man.	1301	♂	"	16	INACTIVE	- DEAD - *
?-12	" "	1305	♀	"	19	"	mites
A-12	" "	0245	♂	"	20	"	—
D-11	" "	2200	♀	"	24	"	—
H-11	" "	0301	♀	"	20	"	—
L-11	" "	1403	♂	"	21	"	—
H-10	" "	~~1004~~ *	♀	"	21	"	(use 1504 in analysis)
G-10	" "	—	ESCAPED				TRAP
E-9	" "	0030	♂	"	22	"	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

(Flat/6400'). C. 5.1.2.14 - 33 1 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Greasewood - Sage Grid # A Project 83 Trap Night #5

Date, time traps set 25 May 75 (1000) Date, time traps checked 26 May 75 (1000)

Last toe clip # used on previous day 0245 Field Analyst(s) Sam, Kestrel

bag wt - 13gm QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight grams	Reprod. Status	Additional Notes*
A13	P. maniculatus	0245	♂	Ad	18	inactive	~~clip could be 0240, last digit "5" could be result of trap fighting~~
E13	P. man.	2200	♀	Ad	23	active	lactating
H13	S. lateralis.	1205	♂	Ad	278 265	inactive	—
L13	P. man.	0251	♀	Ad	20	active	preg.
K12	S. lat.	0252	♀	Ad	266	active	lactating
F12	S. lat.	0253	♂	Ad	243 280	inactive	—
D12	P. man	1203	♂	Ad	23	active	swollen Testes
C12	E. minimus	0254	♀	Ad	32	inactive	—
A12	P. man	0255	♂	Ad	21	inactive	—
T11	P. man	~~1004~~*	♀	Ad	21	inactive	— (*use 1504 in analysis)
A10	E. min	1002	♂	Ad	30	active	swollen testes
E8	P. man	0311	♀	Ad	18	inactive	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROG...

(Flat / 6400')

C. 5. 1. 2. 14 - 34

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Greasewood / Sage Grid # A Project 83 Trap Night #5

Date, time traps set 25 May 75 (1000) Date, time traps checked 26 May 75 (1000)

Last toe clip # used on previous day 0113 Field Analyst(s) Sam

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight grams	Reprod. Status	Additional Notes*
A-1	E. minimum	1054	♂	A	31	inactive	—
B-1	E. min	3050	♂	A	30	"	—
C-1	P. maniculatus	4201	♂	A	20	"	Dead
D-1	E. min	1404	♂	A	35	"	—
F-1	P. man.	1055	♂	A	20	"	—
H-1	P. man	1004	♀	A	18	"	—
J-1	P man	0403	♀	A	23	"	Dead
M-1	E. min	0114	♂	A	31	"	—
K-2	P. man	0112	♀	A	19	"	—
J-2	E. min	0004	♂	A	35	active	desc. testes
B-2	E. min	0040	♂	A	33	"	desc. testes (suffering exp.
B-3	E. min	1052	♂	A	31	"	" "
[illegible]-3	P. man	1405	♂	A	20	inactive	—
H-3	E. min	0402	♀	A	42	active	pregnant
M-3	P. man	0420	♂	A	20	inactive	—
A-4	E. min	0130	♀	A	48	active	pregnant — 4 fetuses Dead
F-4	P. man	0030	♂	A	20	inactive	—
M-4	E. min	1200	♂	A	33	active	desc. testes

*Key taxonomic characters, physical condition of animal, etc.

Pinyon-Juniper (South Slope / 7000) C.5.1.2.15-19 (1 OF 2)

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~South P...~~ Grid # B Project 83 Trap Night 1

Date, time traps set 5/18/75 0930 Date, time traps checked 5/19/75 1000

Last toe clip # used on previous day 1015 ↓ DEC. Field Analyst(s) Turner/Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
A-2	Spermophilus lateralis	1021	F	Ad.	ESCAPED	ACTIVE	Pregnant
B-2	P. man	1022	♂	Ad	20 gm	INACTIVE	tick on nose
F-2	P. "	1023	♀	Ad	21	"	ear 14 mm ~~tail~~ hf. 17
H-2	E. quad.	(0210)	♂	Ad.	46 gm	"	hf. 30
J-2	P. man	0004	♀	Ad	19 gm	INACTIVE	—
K-2	P. truei	1024	♀	Ad	21 gr	"	—
L-4	N. cinerea	0023	♀	Ad	181	Active	lactating
L-10	P. man	0130	♀	Ad	17 gr.	INACTIVE	—
L-11	E. quad.	0020	♀	Ad.	46 gr	"	—
L-12	E. min	0104	♂	Ad	32 gr.	"	—
L-13	E. quad.	0014	♀	Ad	48	INACTIVE	—
K-8	E. min	0303	♀	Ad	35	"	—
K-[illegible]	E. quad	0012	♀	ad	50	"	—
J-4	P. man	0202	♂	Ad	20	"	—
J-12	P. man	0024	♂	Ad	16	"	—
E-7	N. cinerea	0210	♀	Ad	208	ACTIVE	LACTATING
E-6	P. man	1025	♂	Ad	20	INACTIVE	—
D-6	E. min	0220	♂	Ad	36	ACTIVE	Swollen testes
D-11	P. man.	1031	♂	Ad	21	INACTIVE	—
D-13	E. min	1012	♂	Ad	34	"	—
B-12	E. min	0042	♀	ad	38	ACTIVE	PREGNANT
B-4	E. min	0404	♂	ad	32	INACTIVE	—
B-3	E "	0002	♂	ad	36	ACTIVE	Swollen testes
A-3	P. man	1032	♂	Ad	21	INACTIVE	—
A-4	P. man	1033	♀	Ad	18	"	—
A-10	E. min	0200	♀	Ad	34	"	—
A-11	E. min	0402	♀	Ad	33	"	—

*Key taxonomic characters, physical condition of animal, etc.

Pinyon-Juniper (South Slope / 7000') C.5.1.2.15-20

(2 OF 2)

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name South P-J Grid # B Project 83 Trap Night 1

Date, time traps set 0930 18 MAY 75 Date, time traps checked 1000 5-19-75

Last toe clip # used on previous day 2003 (December) Field Analyst(s) TURNER / Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
A-1	P. man	2004	♀	Ad	~~117 32~~ 21 gm	INACTIVE	———
C-1	" "	2005	M	Ad	25 gm	INACTIVE	———
L-1	E. quadrivitatus	~~[illegible]~~ 0045	F	Ad	57 gm	INACTIVE	several ectoparasites observed
M-2	E. MIN.	0205 ?3	F	Ad	39 gm.	inactive	dead in trap
M-3	E. QUADR.	0034	M	Ad	49 gm	INACTIVE	———
M-4	E. MINIMAS	0051	M	Ad	29 gm	INACTIVE	———
M-11	E. MINIMAS	0250	F	Ad	35 gm	ACTIVE	Lactating-PREG R. ft. - 26 mm cor 10 cm
G-9	E. MINI.	0202	F	Ad	41 gm	INACTIVE	———
H-6	P. MAN	1000	F	Ad	20 gm	INACTIVE	———
G-4	P. MAN.	0400	M	Ad	17 gm	INACTIVE	——— R. FT 18 mm
C-11	P. MAN.	2010	F	Ad	19 gm	INACTIVE	———
C-12	P. MAN.	2020	F	Ad	25 gm	INACT.	———
A-[illegible]	E. MIN.	0013	F	Ad	35 gm	INACT.	———
A13	E. MIN.	0043	M	Ad.	31 gm	ACT.	swollen testes

*Key taxonomic characters, physical condition of animal, etc.

Pinyon-Juniper (South Slope / 7000') C. 3.1.2.15-21

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~South P.J.~~ Grid # B Project 83 Trap Night 2

Date, time traps set 5/19/76 1000 Date, time traps checked 5/20/76 0800

Last toe clip # used on previous day 1033 Field Analyst(s) Turner / Reyes

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight	Reprod. Status	Additional Notes*
C-1	E. min.	1002	♂	Ad	36 gm	inactive	—
D-1	P. man	1034	♀	ad	18	"	—
K-1	P. man	0004	♀	ad	18	"	—
L-1	P. truei	1024	♀	ad	20	active	pregnant
M-2	E. quad.	0034	♂	ad	45	"	swollen testis (cold)
M-3	E. ~~quad~~ min.	0051	♂	Ad.	32	"	" " (cold)
M-4	P. man	1035	♀	ad	20	"	pregnant
M-6	P. man	2002	♂	ad	17	inactive	—
M-12	E. quad	0055	♀	ad	42	"	—
K-13	E. min	0031	♀	ad	24	active	pregnant
K-11	E. quad	0052	♀	ad	47	inactive	—
K-10	P. man	0130	♀	ad	16	active	pregnant
I-5	P. man	1041	♂	ad	20	inactive	—
G-7	E. min	0220	♂	ad	31	active	swollen testis
G-8	E. min	0100	♀	ad	32	inactive	—
H-10	P. man	2010	♀	ad	17	"	—
D-13	P. man	2020	♂	ad	18	active	—
D-11	P. man	1031	♂	ad	16	inactive	—
P-9	N. cinerea	0210	♀	ad	175	inactive	
D-7	E. min	0002	♂	ad	33	active	swollen testis
D-4	E. min	0404	♂	ad	32	inactive	—
D-3	P. man	0400	♂	ad	15	inactive	—
B-12	E. min	0304	♂	ad	31	active	swollen testis
A-12	E. min	0043	♂	ad	28	"	"
A-4	P. man	1033	♀	ad	19	inactive	—
A-3	P. man	1022	♂	ad	20	"	—

*Key taxonomic characters, physical condition of animal, etc.

R5OSP PROGRESS REPORT

Pinyon-Juniper (South slope / 7000') C.5.1.2.15 -22

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~South P-J~~ Grid # B Project 83 Trap Night 2

Date, time traps set 5/19/75 1000 Date, time traps checked 20 May 1975 0800

Last toe clip # used on previous day 2020 Field Analyst(s) Germaine Reyes

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight	Reprod. Status	Additional Notes*
B-2	Peromyscus maniculatus	2030	♂	adult	24 g	inactive	none
L-10	Eutamias minimus	2040	♂	adult	~~34~~ 34 g	inactive	none
L-11	Eutamias ? ~~minimus~~	0054	♀?	adult	46 g	inactive	~~none~~ E. quad.
J-12	P. truei	~~1024~~	♂	adult	20	inactive	~~none~~ use 1524 in analysis
J-11	E. minimus	0303	♀?	adult	39 g	inactive	removed 2 swollen wood ticks
J-9	E minimus	0202	♀	adult	46 g	inactive	missing tail
J-5	P. maniculatus	1000	♀	adult	—	inactive	escape from weight bag
I-4	P maniculatus	2050	♀	adult	19 g	inactive	none
F-3	P. maniculatus	1023	♀	adult	20 g	inactive	none
F-13	E. minimus	0032	♀?	adult	34 g	inactive	none
C-13	P maniculatus	1231	♂	adult	20 g	inactive	none
C-11	E. minimus	0402	♀?	adult	34 g	inactive	none

*Key taxonomic characters, physical condition of animal, etc.

Check - 0054
0202

Pinyon - Juniper (South Slope / 7000') C. 5.1.2.15 - 25

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~South PJ~~ Grid # B Project 83 Trap Night 3

Date, time traps set 5/20/75 (0800) Date, time traps checked 5/21/75 (1010)

Last toe clip # used on previous day 1041 Field Analyst(s) Kestrel

QA Check JB

all traps closed bag wt. 13

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	animal Trap Weight gm	Reprod. Status	Additional Notes*
A1	P. maniculatus	2004	♀	Ad	21	turgid vulva	caught in same trap
A1	P. man.	1041	♀	Ad	19	inactive	caught in same trap
A2	P. man.	1200	♀	Ad	17	"	dead
A3	E. minimus	0015	♀	Ad	27	"	dead
A4	P. man.	1022	♂	Ad	19	"	Lt hind foot broken
A6	P. man	1033	♀	Ad	19	"	—
A10	E. min	0042	♀	Ad	33	"	—
A11	P. man	1402	♂	Ad	24	"	—
A12	E. min	0304	♂	Ad	28	"	dead
B12	E. min.	0013	♀	Ad	33	"	dead
B11	P. man	1042	♀	Ad.	17	"	—
B3	E. min.	0030	♀	Ad.	33	"	—
C[illegible]	E. min.	1013	♂	Ad.	29	dist. testes	—
C10	E. min.	0402	♀	Ad.	30	inactive	—
C11	P. man	1044	♀	Ad	21	"	—
C13	P. man	1231	♂	Ad	21	"	possible rat clip
D11	P. man	1031	♂	Ad	16	"	tick
E9	E. min.	0100	♂	Ad	29	"	dead
E8	S. lateralis	—	—	Ad	—	—	ripped bag & escaped
E6	P. man	2010	♀	Ad	20	preg.	—
D3	P. man	1045	♀	Ad	19	inactive	—
D1	E. min	0021	♂	Ad.	32	"	—
F1	P. man	0400	♂	Ad	17	"	—
F3	E. min	0002	♂	Ad	33	dist. testes	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

Pinyon-Juniper (South Slope / 7000') c. 5.1.2.15 - 24

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~South~~ P-J Grid # B Project 83 Trap Night 3

Date, time traps set 5/20/75 (0800) Date, time traps checked 5/21/75 (1000)

Last toe clip # used on previous day 2050 Field Analyst(s) Kestrel / McGuire

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
L-2	Eutamias minimus	0041	♂	Ad	32g	Active	testes descended
L-1	Peromyscus truei	2100	♂	Ad.	24g	Active	" "
M-3	Eutamias quadrivittatus	0034	♂	Ad.	43g	Active	" " (Dead in trap)
M-6	Peromyscus maniculatus	0024	♂	Ad.	16	inactive	—
M-10	E minimus	0250	♀	Ad.	37	Active	Lactating (Dead in trap)
L-11	E. minimus	1040	♂	Ad	33	Active	testes - descended
M-11	E. quadrivittatus	0020	♂	Ad.	45	inactive	Dead in Trap
M-12	P. truei	2200	♂	Ad.	21	inactive	Dead in Trap
M-13	E. minimus	0031	♀	Ad.	45	Active	Pregnant - Dead in Trap
K-13	E. minimus	0104	♂	Ad.	46	~~Active~~ inactive	~~Pregnant~~
J-12	E. minimus	0303	♀	Ad.	32	inactive	Dead in Trap
K-11	P. truei	2300	♂	Ad.	20	inactive	—
[illegible]-1	E. quadrivittatus	0450	♂	Ad.	40	inactive	Dead in Trap
H-1	E minimus	0200	♀	Ad.	-	inactive	Dead in Trap
H-2	Neotoma cinerea	2400	♂	Ad.	-	inactive	Dead in Trap
J-5	P. maniculatus	1000	♀	Ad.	18	inactive	—
J-6	P. maniculatus	2050	♀	Ad.	19	Active	vagina ~~open~~ swollen
G-9	E. minimus	0220	~~♀~~ ♂	Ad.	30	inactive	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

~~[illegible]~~

Pinyon- Juniper (South Slope / 7000') C. 5.1.2.15 - 25

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~South PJ~~ Grid # B Project 83 Trap Night 4

Date, time traps set 5/24/75 1000 Date, time traps checked 5/25/75 09:40

Last toe clip # used on previous day 2400 Field Analyst(s) GAR / D.McG.

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional* Notes
A-4	P. maniculatus	1033	♀	Ad	25g	active	pregnant
A-8	E minimus	0403	♀	Ad	39 g	inactive	none
A-10	P. man	1042	♀	Ad	21g	inactive	none
A-12	E min	0042	♀?	Ad	38g	inactive	none
A-13	E min.	~~0012~~	♂	Ad	38g	inactive	1012 none
B-12	P. man.	1031	♂	Ad	24g	active	swollen testes
B-10	E min.	0150	♀?	Ad	37g	inactive	none
B-2	P. man	~~1042~~*	♀	Ad	26g	active	pregnant* (use 1542 in analysis)
B-1	P. man	2030	♂	Ad	21g	active	swollen testes
C-1	E min	1007	♂	Ad	31g	active	swollen testes
C-6	E. min	0002	♂	Ad	34g	active	swollen testes
C-10	E. min	0402	♀	Ad	35g	inactive	none
C-1	P man	1031	♂	Ad	21g	active	(same animal that was caught at B-1) swollen testes
C-13	P. man	2020	♂	Ad	21g	active	swollen testes
D-7	P. ma.	1424	♂	Ad	18g	inactive	Dead in Trap
D-6	~~P. man~~?	2010	♀	Ad	24g	inactive	no measurements
D-3	P. man	1023	♀	Ad	75g	active	pregnant?
D-1	S. lateralis	-	-	-	-	-	Escape thru bag
F-12	E. min	0032	♀	Ag	38g	inactive	none
P. maniculatus							

*Key taxonomic characters, physical condition of animal, etc.

Pinyon-Juniper (South Slope / 7000') c. 5.1.2.15 - 26 292

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~South PJ~~ Grid # B Project 83 Trap Night 4

Date, time traps set 5/24/75 10 AM Date, time traps checked 5/25/75 9:40 AM.

Last toe clip # used on previous day 1045 Field Analyst(s) McGuire / Reyes

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ animal Weight	Reprod. Status	Additional* Notes
K-1	P. man	0004	♀	ad	17 gm	active	Vag open
M-1	E. min	0051	♂	ad	30 gm	active	~~testes~~ descended.
L-1	E. min	0410	♀	ad	36 gm	active	lactating / bob tail
M-3	S. lateralis	1051	♀	ad	147 gm	mature	—
M-6	P. man	0130	♀	ad	19 gm	active	vag open
M-8	E. ~~min~~ quad.	0055	♀	ad	40 gm	inactive	—
M-11	P. man	1035	♀	ad	19 gm	inact	—
M-12	E. quad	1004	♀	ad	57 gm	active	vag open (HF 32 mm)
L-8	P. truei	2300	♂	ad	20 gm	inactive	
L-4	N. cinerea	0023	♀	ad	159 gm	active	lactating
K-2	P. man	0430	♂	ad	15 gm	inact	—
K-4	E. quad	0052	♀	ad	49 gm.	inact	(HF 32 mm)
K-10	E. min	0104	♂	ad	31 gm.	inact	—
K-13	S. lateralis	1052	♀	ad	118 gm	inact	nearly dead in trap
J-9	E. min	0043	♂	ad	20 gm	inact	—
J-5	P. man	1000	♀	ad	17 gm.	inact	—
H-1	E. min	0021	♂	ad	35 gm	inact	—
H-5	P. man	0024	♂	ad	17 gm	"	—
I-7	P. man	1053	♀	ad	21 gm	act	vag open
G-7	E. min	0220	♂	ad	36 gm	act	testes descended

*Key taxonomic characters, physical condition of animal, etc.

PROSP PROGRESS REPORT

Pinyon-Juniper (South Slope / 7000') C. 5.1.2.15 - 27

1 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~South PJ~~ Grid # B Project 83 Trap Night 5

Date, time traps set 5/25/75 09:40 Date, time traps checked 5/26/75 08:40 AM

Last toe clip # used on previous day 2400 Field Analyst(s) McGuire / Tich

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ animal Weight	Reprod. Status	Additional Notes*
B-1	S. lateralis	3001	♂	ad	178gm	inactive	—
B-10	E. min	0402	♀	ad	30gm	"	—
B-12	S. lateralis	3002	♀	ad	158gm	"	—
C-11	E. min	0042	♀	ad	47gm	"	—
C-8	E. min	0220	♂	ad	33gm	active	testes down
C-4	E. min	0002	♂	ad	37gm	"	" "
D-1	E. min	3003	♂	ad	28gm	active	" "
G-6	E. min	0100	♀	ad	30gm	inactive	—
K-12	E. min	0032	♀	ad	30gm	"	—
K-10	E. min	1035	♀	ad	23gm	"	—
K-2	E. quad	0052	♀	ad	52gm	"	(HF=31mm)
M-1	S. lateralis	1051	♀	ad	148gm	"	—
[illegible]	E. quad	4200	♂	ad	50gm	active	testes down (HF=32mm)
L-12	E. quad	0055	♀	ad	46gm	inactive	(HF=32mm)
M-13	E. quad	0054	♀	ad	50gm	"	(HF 32mm)

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

Pinyon-Juniper (South site 7000) C. 5.1.2.15 - 28

292

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name South PJ Grid # B Project 83 Trap Night 5

Date, time traps set 5/25/75 0940 Date, time traps checked 5/26/95 (0830)

Last toe clip # used on previous day 1053 Field Analyst(s) Thomas Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight in gms.	Reprod. Status	Additional Notes*
A-1	Eutamias minimus	0330	♂ ♀	A	37	INACT.	ALMOST DEAD
A-10	" "	1054	♂	A	26	ACT.	desc. testes
C-13	P. man.	1055	♀	A	20	ACTIVE	open vulva.
D-12	E. min.	0104	♂	A	35	"	desc. testes
D-10	" "	0043	♂	A	29	"	" "
E-7	P. man.	1101	♂	A	24	inact.	—
D-7	" "	1031	♂	A	22	"	—
I-7	" "	1053	♀	A	20	ACT.	open vulva
K-1	E. quadrivittatus	0045	♀	A	50	ACT.	lactating / ALMOST DEAD
M-4	Neotoma cinerea	0023	♀	A	149	ACT.	lactating / very slow
M-8	E. quad.	1102	♂	A	53	ACT.	DESC. testes
M-11	P. truei	1103	♀	A	28	INACT.	—
M-12	E. quadrivittatus	1104	♀	A	58	ACTIVE	lactating

*Key taxonomic characters, physical condition of animal, etc.

Pinyon-Juniper. North slope / 6400, C. 5.1.2.16-11

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

1 of 2

Grid Name ~~Hunt Club P.J.~~ Grid # C Project 63 Trap Night #1

Date, time traps set 18 May 75 (1500) Date, time traps checked 19 May 75 (1500)

Lg. toe clip # used on previous day 2030 Field Analyst(s) Sang

Bag weight = 10 grams (— = inactive) QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
M-2	E. minimus	0202	♂	A	~~40 gr~~ 30	—	—
M-8	P. maniculatus	0220	♀	A	~~32~~ 22	—	—
M-11	P. man	0440	♀	A	~~33~~ 33	—	—
M-13	P. man	0430	♀	A	~~32~~ 22	lactating	—
L-13	P. man	0051	♂	A	~~30~~ 20	—	—
L-1	P. man	1020	♀	A	~~30~~ 20	—	—
K-1	E. min	0120	♂	A	~~44~~ 39	—	—
K-6	E. min	0044	♀	A	~~60~~ 50	pregnant	—
J-10	E. min	0014	♀	A	~~48~~ 38	—	—
J-5	E. min	1100	♀	A	~~50~~ 40	—	—
J-1	E. min	0210	♀	A	~~40~~ 30	—	—
I-3	E. min	1200	♀	A	~~55~~ 45	—	—
H-[illegible]	E. quadrivittatus	4000	♀	A	~~70~~ 60	lactating	—

*Key taxonomic characters, physical condition of animal, etc.

RBCSP PROGRESS REPORT

Pinyon-Juniper (North Slope) (1900) C.5.1.2.16-18

2 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Hunting Club P J~~ Grid # C Project 83 Trap Night 1

Date, time traps set 5/18/75 (1600) Date, time traps checked 5/19/75 (1500)

Last toe clip # used on previous day 1050 Field Analyst(s) Kestriel

QA Check JB

1403 bag wt 13

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	~~Trap~~ Animal Weight	Reprod. Status	— = inactive Additional Notes*
A4	S. lateralis	0012	♂	A	~~18~~ 5/174 gm	inactive	—
A6	E. quadrivittatus	0305	♂	A	~~62~~ 49	swollen testes	—
A8	P. maniculatus	1403	♀	A	~~30~~ 17	Inactive	—
A10	~~E. quad.~~ S. lateralis	1405	♂	A	~~158~~ 145	" —	—
A11	P. man.	0111	♀	A	~~29~~ 16	"	—
A12	E. min.	0301	♂	A	~~42~~ 29	"	—
B1	P. man.	0050	♀	A	~~35~~ 22	"	—
C1	S. lateralis	0112	♂	A	~~178~~ 165	"	—
C11	E. min	~~0120~~	♀	A	~~58~~ 45	preg.	— use 0126 in analysis
D11	P. man	0020	♀	A	~~49~~	inactive	jumped out of bag while weig
E4	P. man	0113	♂	A	~~37~~ 24	"	—
D1	E. min	0114	♀	A	~~54~~ 41	"	—
F	P. man	0045	♂	A	~~31~~ 18	"	—
F2	S. lateralis	0015	♀	A	~~194~~ 181	"	—
F12	P. man	0025	♂	A	~~31~~ 18	"	tick

*Key taxonomic characters, physical condition of animal, etc.

Pinyon Juniper (North Slope 1960) C. 5.1.2.16-19

1 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Hunting Club P.J.~~ Grid # C Project 83 Trap Night #2

Date, time traps set 19 May 75 (1500 hrs) Date, time traps checked 20 May 75 (1400 hrs)

Last toe clip # used on previous day 1200 Field Analyst(s) Sanz

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
1	P. maniculatus	1020	♀	A	17 gms	inactive	—
11	P. man	0430	♀	A	20	lactating	—
-13	P. man	0420	♂	A	23	inactive	—
L-13	P. man	0440	♀	A	21	"	—
L-12	P. trueii	1300	♂	A	22	"	hf = 21 cm, ear = 23 cm
L-11	P. truei	1400	♀	A	23	"	hf = 20 cm ear = 24 cm
L-2	P. man.	2001	♂	A	18	"	—
L-1	P. man	2002	♀	A	17	"	—
K-1	E. min	0120	♂	A	28	"	~~suffering from exposure~~
-6	P. man	2003	♂	A	19	dist. testes	—
10	E. min.	1100	♀	A	40	inactive	—
-5	P. man	0113	♂	A	16	"	—
2	E. min	0049	♀	A	48	pregnant	—
3	S. lateralis	0012	♂	A	192	inactive	—

*Key taxonomic characters, physical condition of animal, etc.

Pinyon-Juniper (North Slope / 6900) C. 5.1.2.16-20 2012

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Hunting Club P.J.~~ Grid # C Project 83 Trap Night #2

Date, time traps set 19 May 75 (1500) Date, time traps checked 20 May 75 (1400hrs)

Last toe clip # used on previous day 0115 Field Analyst(s) Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional* Notes
A-1	E. min	0126	M	A	30 g.	ACT.	swollen testes - METAB. SLOW
A-2	P. man	0122	M	A	18 g	NONACT	—
A-8	P. man	1403	F	A	16 g	inact	—
A-11	P. man	0025	M	A	16 g	inact.	—
A-13	E. min	~~0120~~	F	A	48 g	ACTIVE	Preg. use 0126 in analys
B-11	E. quadrivittatus	0023	F	A	52 g	nonact.	—
B-10	P. man.	0123	F	A	28 g.	nonact	—
B-9	S. lateralis	0124	F	A	180 g.	ACTIVE	Lactating - pregnant.?
B-4	P. man	0125	F	A	20 g.	NonACT.	Remark from 0050
B-1	E. quadrivittatus	0131	F	A	58 g	ACTIVE	LACTATING - swollen MAMMARY
D-2	E. min	0103	M	A	44 g.	ACT.	swollen testes
F-10	E. min.	0014	F	A	34 g.	NON.ACT	—
F-[illegible]	P. MAN	0020	F	A	20 g.	NonACT.	—

*Key taxonomic characters, physical condition of animal, etc.

HDOMP PROGRESS REPORT

Pinyon-Juniper (North Slope | 6900') C. 5.1.2.16-21

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Hunting Club, P.J.~~ Grid # C Project 83 Trap Night # 3

Date, time traps set 20 MAY, 75 (1400) Date, time traps checked 12 30 5/21/75

Last toe clip # used on previous day 2003 Field Analyst(s) G.A. Reyes, Sary

all traps left closed QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight grams	Reprod. Status	measurements (mm) Additional Notes*
A-11	Eutamias minimus	0305	♂	A	48	active swollen testes	wet & sluggish H.F.-29 B-190
A-8	Peromyscus maniculatus	2004	♀	A.	25	inactive	Ear 17 T-63 H.F. 20 Body -~140 wet
A-4	~~Spermophilus lateralis~~	~~1407~~	—	—	—	—	hinge sprung bring replacement trap tomorrow
B-3	Spermophilus lateralis	1413		A			escaped before sexing and weighing
B-4	E. quadrivittatus ~~minimus~~	2005	♂	A	54	active swollen testes	—
B-8	Peromyscus maniculatus ~~truei~~	0123	♀	A	27	pregnant	Ear 15 Tail - 42
B-11	P. maniculatus	0025	♂	A	19	inactive	—
D-2	E. minimus	0204	♀	A	32	inactive	—
H-3	E. minimus	1200	♀	A	49	pregnant	—
H-4	P. maniculatus	0045	♂	A	22	Active swollen testes	—
J-9	E. minimus	1100	♀	A	40	inactive	—
H-11	P. maniculatus	0051	♂	A	19	active	testes desc.
L-13	P. maniculatus	0420	♂	A	20	active	" — "
M-13	P. maniculatus	0430	♀	A	24	pregnant	—
M-8	P. maniculatus	0113	♂	A	16	inactive	—
K-3	P. maniculatus	2040	♂	A	16	inactive	
M-2	P. maniculatus	1020	♀	A	18	inactive	
M-1	Eutamias minimus	0202	♂	A	N/A	inactive	Dead in trap
L-1	E. minimus	0210 ~~0200~~	♀	A	—	—	Dead in trap
B-12	E. quad	0023	♀	A	N/A	inactive	Dead in trap

*Key taxonomic characters, physical condition of animal, etc.

Pinyon-Juniper / North Slope (1900') C. 5.1.2.16 -22 1 of 2.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Hunting Club P.J.~~ Grid # C Project 83 Trap Night #4

Date, time traps set 24 May 75 (1450) Date, time traps checked 25 May 75 (1330)

Last toe clip # used on previous day 2040 Field Analyst(s) Sanz

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight grams	Reprod. Status	Additional Notes*
L-1	P. maniculatus	2050	♀	A	23	inactive	—
M-11	E. quadrivittatus	1003	♀	A	55	lactating	—
M-13	P. man.	0430	♀	A	25	lactating	—
L-12	P. truei	1400	♀	A	27	inactive	—
L-6	P. man	0440	♀	A	25	"	—
L-2	P. man	2000	♂	A	20	"	—
K-3	E. minimus	1100	♀	A	35	"	—
K-6	P. man	0220	♀	A	20	"	—
J-8	E. min.	1003	♀	A	34	"	—
J-7	P. man	0113	♂	A	18	"	—
H-3	P. man	0045	♂	A	19	"	

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

Pinyon-Juniper (North Slope / 6910') C. 5.1.2.16 -23 2 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Hunting Club P.J.~~ Grid # C Project 83 Trap Night #4

Date, time traps set 24 May 75 (1450) Date, time traps checked 25 May 75 (1330)

Last toe clip # used on previous day 0131 Field Analyst(s) Pick

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight in gms.	Reprod. Status	Additional Notes*
A-2	Eutamias minimus	0121	♂	A	31	ACTIVE	desc. testes
A-4	" P. man.	—	ESCAPED			BAG	—
A-13	"	2004	♀	A	19	INACT.	—
B-11	"	0132	♂	A	18	"	—
B-10	Spermophilus lateralis	0124	♀	A	150	ACT.	lactating / metabolism very slow
B-6	"	1405	♂	A	143	INACT.	—
C-11	E. min	0304	♂	A	29	ACT.	desc. testes
C-12	E. quadrivittatus	—		ESCAPED		BAG	—
D-1	E. min.	0103	♂	A	29	ACT.	desc. testes
G-5	"	0014	♀	A	37	PREG.	—
F-13	P. man	0133	♀	A	18	INACT.	—

*Key taxonomic characters, physical condition of animal, etc.

REOSP PROGRESS REPORT

Pinyon - Juniper (North Slope / 6900') C.5.1.2.16 -24 1 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Hunting Club P.J.~~ Grid # C Project 83 Trap Night #5

Date, time traps set 25 May 75 (1330) Date, time traps checked 26 May 75 (1500)

Last toe clip # used on previous day 0133 Field Analyst(s) Sam,

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight grams	Reprod. Status	Additional Notes*
L-1	P. maniculatus	2000	♀	A	19	inactive	—
M-8	P. man	0440	♀	A	35	pregnant	—
M-13	P. truei	1400	♀	A	25	inactive	—
K-6	P. man	0113	♂	A ?	17	"	—
J-13	S. lateralis	1041	♀	A	155	lactating	suffering from exposure
J-4	E. minimus	1100	♀	A	34	inactive	—
H-1	E. min	1034	♂	A	32	"	—
G-9	E. min	0014	♀	A	39	"	—

*Key taxonomic characters, physical condition of animal, etc.

Pinyon-Juniper (North Slope/6900') C.5.1.2.16-25 272

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name ~~Hunting Club A.F.~~ Grid # C Project 83 Trap Night #5

Date, time traps set 25 May 75 (1330) Date, time traps checked 26 May 75 (1500)

Last toe clip # used on previous day 2050 Field Analyst(s) Kestrel

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight grams	Reprod. Status	Additional Notes*
A-2	E. minimus	1003	♀	Ad	32	inactive	—
A-4	E. min	2100	♀	Ad	37	inactive	—
A-6	S. lateralis	2200	♀	Ad	139	inactive	—
A13	P. maniculatus	2004	♀	Ad	20	inactive	—
B10	P. man	0110	♀	Ad	17	"	—
A6	S. lateralis	1405	♂	Ad	163 149	"	—
C2	P. man	2300	♀	Ad	19	"	—
B1	E. quad.	2400	♀	Ad	63 52	"	—
E1	E. min	0100	♂	Ad	35	"	poor condition

*Key taxonomic characters, physical condition of animal, etc.

PBOSP PROGRESS REPORT

(North Slope/7100) C 5.1.6.11-18 1 OF 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name SAGEBRUSH Grid # D Project 83 Trap Night 1

Date, time traps set 5/18/75 1500 Date, time traps checked 5/18/75 1730

Last toe clip # used on previous day 1013 Field Analyst(s) Turner/Bice

DEC QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal ~~Trap~~ Weight	Reprod. Status	Additional Notes*
L-1	E. min	1030	♀	Ad	54 gm	active	preg.
L-2	E. min	WAS 0010 1014	♀	ad	40	e?	marked accidentally old # 0010 new # 1014
L-4	P. man	1015	♂	Ad	19	inactive	—
L-12	E. min	0201	♀	ad	38	"	—
J-11	E. min	4000	♂	ad	33	active	swollen testes
J-9	E. min	1000	♂	ad	32	"	" "
I-5	E. min	0440	♂	ad	33	"	" "
F-1	E. min	0014	♀	ad	52	"	pregnant
F-12	P. man	1021	♀	ad	18	inactive	—
D-10	E. min	0003	♂	ad	36	active	swollen testes
D-2	E "	0401	♂	ad	32	"	" "
B-4	E. "	0350	♂	ad	34	"	" "
[illegible]	E "	0030	♂ ~~♀~~	ad	30	inactive	—
B-11	P. man	1022	♂	ad	23	"	—
B-12	P. man	1023	♂	ad	22	"	—

*Key taxonomic characters, physical condition of animal, etc.

RBOSP PROGRESS REPORT

[illegible]
SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET [illegible]

[illegible] [illegible] Grid # [illegible] [illegible] [illegible] Trap Night [illegible]
Date/time traps set [illegible] [illegible] Date/time traps checked [illegible]
[illegible] to previous day [illegible] Field Recorder [illegible]
No. Traps [illegible]

Trap No.	Species	Ear Tag No.	Sex	Age Class	Weight	Reprod. Status	Additional Notes
[illegible]	[illegible]	0017	♀	[illegible]	77	[illegible]	[illegible]
[illegible]	[illegible]	1815	♂	Ad	15	[illegible]	[illegible]
[illegible]	[illegible]	0013	♂	Ad	30	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	Ad	22	"	[illegible]
[illegible]	[illegible]	[illegible]	♂	Ad	35	"	[illegible]
[illegible]	[illegible]	[illegible]	♂	Ad	35	"	" "
[illegible]	[illegible]	1821	♀	Ad	25	[illegible]	—
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	"	—
[illegible]	[illegible]	1824	♀	Ad	27	"	—
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0021	♀	Ad	18	[illegible]	—
[illegible]	[illegible]	1803	♂	Ad	17	"	—
[illegible]	[illegible]	[illegible]	♀	Ad	5	"	—
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	"	—
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	"	—
[illegible]	[illegible]	[illegible]	♀	Ad	19	[illegible]	—

[illegible] parasites, general condition of animal, etc.
[illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA FORM

Area Name [illegible] Grid # [illegible] Project [illegible] Trap Night [illegible]

Date, time traps set [illegible] Date, time traps checked [illegible]

Age, type & used on previous day [illegible] Field Analyst(s) [illegible]

of Check [illegible]

Catch-Type	Species	Toe Clip No.	Sex	Age Class	Weight	Capture Status	Additional Notes
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	″	—
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	″	—
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	″ ″
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	″	″ ″
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	″	″ ″
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	″	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	″	″ ″
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	″	—
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	″	—

Additional comments, physical condition of animal, etc.

[illegible]

Date/Day	Species	Tag/Clip No.	Sex	Age Class	Actual Body Weight	Reprod. Status	Additional Notes
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	Ad	—	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	Ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	Ad	[illegible]	[illegible]	

[illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name [illegible] Grid # [illegible] Station [illegible] Day number [illegible]

Date, time traps set [illegible] Date, time traps checked [illegible]

Toe clip # used on previous day 3881 Field tech(s) [illegible]

of checks [illegible]

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Body Weight	Recovery Status	Additional Notes*
[illegible]	[illegible]	[illegible]	♂	ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	ad	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	ad	[illegible]	[illegible]	[illegible]

* Ectoparasites, lactation, physical condition of animal, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

[illegible] 5[illegible] [illegible] D [illegible] 83 [illegible] 5

[illegible] 5/25/[illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible]

[illegible] 10

[illegible]	Species	Toe Clip No.	Sex	Age Class	Weight	[illegible]	Additional* Notes
[illegible]	[illegible]	1032	♀	A	19 [illegible]	[illegible]	—
[illegible]	[illegible]	1100	♂	A	31	[illegible]	[illegible]
[illegible]	[illegible]	1051	♀	A	31	[illegible]	—
[illegible]	"	[illegible]	♂	A	23	"	—
[illegible]	[illegible]	[illegible]	♂	A	33	[illegible]	[illegible]
[illegible]	"	[illegible]	♂	A	32	"	
[illegible]	"	[illegible]	♂	A	[illegible]	"	" "
[illegible]	"	[illegible]	♀	A	33	"	
[illegible]	"	[illegible]	♀	A	25	"	[illegible]
[illegible]	"	[illegible]	♀	A	30	"	[illegible]
[illegible]	"	[illegible]	♀	A	33	[illegible]	—
[illegible]	"			[illegible]	OPEN	[illegible]	
[illegible]	"	[illegible]	♂	A	31	[illegible]	[illegible]
[illegible]	"	[illegible]	♂	A	33	"	" "

*e.g. reproductive characters, physical condition of animal, etc.

[illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Plot Name: Mixed Brush   Grid # I   Project 83   Trap Night 1

Date, time traps set: [illegible] 0830   Date, time traps checked: [illegible]

Last toe clip # used on previous day: [illegible]   Field Analyst(s): [illegible]

[illegible] 1030   QA Check: [illegible]

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Approx. Body Weight	Reprod. Status	Additional Notes*
[illegible]	[illegible]	[illegible]	♂	[illegible]	[illegible]	inactive	none
[illegible]	P. maniculatus	1030	♀	Adult	[illegible]	inactive	[illegible] white markings
[illegible]	P. maniculatus	1040	♀	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	1050	♂	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	1100	♂	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	[illegible]	♀	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	[illegible]	♀	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	[illegible]	♀	Adult	[illegible]	inactive	none
[illegible]	[illegible]	[illegible]	♂	Adult	[illegible]	active	[illegible]
[illegible]	P. maniculatus	[illegible]	♂	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	[illegible]	♂	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	[illegible]	♀	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	[illegible]	♀	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	[illegible]	♀	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	[illegible]	♀	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	[illegible]	♀	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	[illegible]	♀	Adult	[illegible]	inactive	none
[illegible]	P. maniculatus	[illegible]	♂	Adult	[illegible]	active	[illegible]
[illegible]	P. maniculatus	[illegible]	♀	Adult	[illegible]	inactive	

* Unusual characters, physical condition of animal, etc.

[illegible]

[illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Field Name: Miguel Ranch Grid #: E Project: [illegible] Trap night: 2

Date, time traps set: 5/19 1100 Date, time traps checked: 5/20 0520

Last toe clip # used on previous day: 7 1010 Field Analyst(s): J. G.

Data Entry: [illegible]

Stat. No.	Species	Toe Clip No.	Sex	Age Class	Approx. [illegible]	Reprod. Status	Additional Notes*
[illegible]	P. eremicus	1040	♀	A	51-12	inactive	none
[illegible]	P. eremicus	1020	♀	A	50-12	"	none
[illegible]	P. eremicus	2050	♂	A	51-12	active	swollen testes
[illegible]	P. eremicus	[illegible]	♂	A	49-12	active	" "
[illegible]	P. eremicus	[illegible]	♂	A	42-12	inactive	none
[illegible]	P. maniculatus	3100	♀	A	30-12	"	none
[illegible]	P. maniculatus	[illegible]	♀	A	[illegible]-12	"	none
[illegible]	P. maniculatus	0305	♂	A	33-12	"	none
[illegible]	P. eremicus	1014	♀	A	—	"	Dead
[illegible]	P. maniculatus	0205	♂	A	30-12	"	[illegible]
[illegible]	P. maniculatus	2003	♀	A	31-12	"	none
[illegible]	P. maniculatus	2100	♀	A	30-12	"	none
[illegible]	P. eremicus	[illegible]	♀	A	42-12	"	none
[illegible]	P. eremicus	2010	♂	A	43-12	active	swollen testes
[illegible]	P. eremicus	[illegible]	♀	A	47-12	inactive	none
[illegible]	P. eremicus	1300	♂	A	43-12	"	none
[illegible]	P. eremicus	[illegible]	♂	A	47-12	active	swollen testes

*e.g. taxonomic characters, physical condition of animal, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name: Mixed Brush Grid # E Project 83 Trap Night 2

Date, time traps set [illegible] Date, time traps checked [illegible]

Last toe clip # used on previous day 0305 Field Analyst(s) [illegible]

QA Check [illegible]

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Body Weight	Capture Status	Additional Notes*
[illegible]	Peromyscus maniculatus	[illegible]	♂	A	[illegible]	[illegible]	—
[illegible]	P. man.	[illegible]	♀	A	34	"	—
[illegible]	P. man.	[illegible]	♀	A	[illegible]	"	
[illegible]	P. man.	0200	♀	A	38	"	[illegible]
[illegible]	P. man.	2002	♂	A	33	"	—
[illegible]	P. man.	[illegible]	♀	A	—	"	[illegible]
[illegible]	P. man.	[illegible]	♀	A	[illegible]	"	
[illegible]	P. man.	[illegible]	♂	A	35	[illegible]	—
[illegible]	P. man.	2130	♀	A	[illegible]	[illegible]	[illegible]
[illegible]	P. man.	[illegible]	♀	A	35	"	—
[illegible]	P. man.	0042	♂	A	[illegible]	"	[illegible]
[illegible]	P. man.	0030	♀	A	[illegible]	"	—
[illegible]	P. man.	2001	♂	A	[illegible]	"	—
[illegible]	P. man.	0040	♀	A	44	"	—
[illegible]	[illegible]	[illegible]	[illegible]				—
[illegible]	P. man.	[illegible]	♀	A	[illegible]	[illegible]	[illegible]

*e.g. taxonomic characters, [illegible] condition of animal, etc.

SMALL [illegible] LIVE TRAPPING FIELD DATA [illegible]

[illegible] Name [illegible] Grid # 5 Project [illegible] Trap [illegible]

[illegible] traps [illegible] (0900) Date, time traps checked [illegible]

[illegible] trap # used on previous day [illegible] Field Analyst(s) T. [illegible]

QA Check [illegible]

[illegible]	Species	Toe Clip No.	Sex	Age Class	[illegible] Weight [illegible]	[illegible] Status	Additional* Notes
[illegible]	[illegible]	[illegible]	♂	A	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	A	[illegible]	[illegible]	[illegible]
[illegible]	"	[illegible]	♀	A	[illegible]	"	
[illegible]	"	[illegible]	♀	A	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	A	[illegible]	"	[illegible]
[illegible]	"	[illegible]	♂	A	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	A	[illegible]	"	[illegible]
[illegible]	[illegible]	[illegible]	♂	A	[illegible]	"	[illegible]
[illegible]	[illegible]	[illegible]	♂	A	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♂	A	[illegible]	"	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	A	[illegible]	"	[illegible]
[illegible]	"	E	S C	A P	E D	FROM	TRAP [illegible]
[illegible]	[illegible]	[illegible]	♀	A	[illegible]	[illegible]	[illegible]
[illegible]	"	[illegible]	♀	A	[illegible]	"	[illegible]
[illegible]	[illegible]	[illegible]	♀	A	[illegible]	[illegible]	" " "
[illegible]	"	[illegible]	♀	A	[illegible]	"	" " "
[illegible]	[illegible]	[illegible]	♂	A	[illegible]	[illegible]	[illegible] " "

*e.g. taxonomic characters, physical condition of animal, etc.

[illegible]

[illegible] (Mixed Brush) [illegible] [illegible]

SMALL [illegible] LIVE TRAPPING FIELD DATA SHEET

Grid Name Mixed Brush Grid # F Project 83 Trap Night 3

Date/Time Traps Set 5/20/75 0900 Date, time traps checked 5/21 [illegible]

Toe clip # used on previous day 2300 Field Analyst(s) [illegible]

[illegible] [illegible] Data Sheet [illegible]

Trap No.	Species	Toe Clip No.	Sex	Age Class	[illegible] Weight	Reprod. Status	Additional Notes*
[illegible] 3	P. maniculatus	0050	♂	A	[illegible]	[illegible]	[illegible]
[illegible]	P. [illegible]	2110	♀	A	—	[illegible]	Dead
[illegible]	P. man.	[illegible]	♀	A	39 37	pregnant	—
[illegible] 15	P. man.	[illegible]	♂	A	—	[illegible]	Dead
[illegible]	P. man.	[illegible]	♂	A	—	" "	Dead
[illegible]	P. maniculatus	[illegible]	♂	A	23 21	[illegible]	—
[illegible]	P. man.	[illegible]	♂	A	21 19	"	—
[illegible]	P. man.	1300	♀	A	22 20	[illegible]	—
[illegible]	P. [illegible]	3040	[illegible]	A	—	[illegible]	Dead
[illegible]	P. man.	[illegible]	♂	A	22 20	"	[illegible]
[illegible]	P. man.	3011	♂	A	20 34	[illegible]	—
[illegible]	P. man.	[illegible]	♂	A	[illegible] 12	[illegible]	—
[illegible]	P. man.	[illegible]	♀	A	23 31	[illegible]	—
[illegible]	P. [illegible]		—	—		—	[illegible]
[illegible]	P. man.	[illegible]	♀	A	26 24	[illegible]	— [illegible]
[illegible]	P. man.	[illegible]	♀	A	23 21	[illegible]	—
[illegible]	P. man.	[illegible]	♂	A	33 33	[illegible]	—
[illegible]	P. man.	[illegible]	♂	A	[illegible] 21	[illegible]	—
[illegible]	P. [illegible]	[illegible]	♀	A	—	[illegible]	Dead
[illegible]	[illegible]	[illegible]	♂	A	20 15	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	♀	A	—	[illegible]	Dead
[illegible]	P. man.	[illegible]	♀	A	24 36	[illegible]	—
—	M. [illegible]					corrected weight [illegible]	[illegible]
	[illegible]						

*e.g. [illegible] [illegible], physical condition of animal, etc.

6/23 [illegible] + 9/17 = 15/39 = 38.5 [illegible]

[illegible] C.5.1.2.IV - 26 19

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Location: Dead Brush Grid # E Project 93 Trap Night 4

Date, time traps set 5/24/75 [illegible] Date, time traps checked 5/25/75 [illegible]

Last toe clip # used on previous day [illegible] 3009 Field Analyst(s) [illegible]

QA Check [illegible]

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight	Reprod. Status	Additional* Notes
[illegible]	P. [illegible]	2001	♂	A	37 gm	[illegible]	—
[illegible]	P. maniculatus	0140	[illegible]	A	20	"	—
[illegible]	P. man.	[illegible]	♀	A	16	"	— 3005
[illegible]	P. man.	2200	[illegible]	A	18	"	—
[illegible]	[illegible]	3005	♀	A	20	"	—
[illegible]	[illegible]	2016	♂	A	17	"	[illegible]
[illegible]	P. man.	0305	♂	A	22	[illegible]	[illegible]
[illegible]	P. man.	0015	♀	A	38	"	" [illegible]
[illegible]	P. [illegible]	1300	♀	A	20	"	" "
[illegible]	P. man.	0505	♂	A	29	"	" [illegible]
[illegible]	P. man.	3001	♂	A	30	"	" "
[illegible]	P. man.	1030	♀	A	32	inactive	
[illegible]	P. man.	[illegible]	♀	A	22	inactive	[illegible]
[illegible]	P. man.	2110	♀	A	20	"	" "
[illegible]	P. man.	1100	♂	A	21	[illegible]	—
[illegible]	P. man.	1301	♀	A	29	"	—

*Parasites, molt characters, physical condition of animal, etc.

DRAFT PROGRESS REPORT

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SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Mineral Basin Grid # [illegible] Project 83 Trap Night 1

Date, time traps set 5/24/75 (1100) Date, time traps checked 5/25/75 (0900)

Last toe clip # used on previous day 0320 Field Analyst(s) Kendall

QA Check [illegible]

bag wt. 15g.

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight (bag wt. 15g)	Reprod. Status	Additional Notes*
[illegible]	E. minimus	0300	♂	Ad	30	inactive	—
[illegible]	E. min	0330	♂	Ad	20	"	—
[illegible]	E. min	0340	♂	Ad	28	active	swollen testes
[illegible]	P. maniculatus	0350	♂	Ad	16	inactive	—
[illegible]	E. min	[illegible]	♂	Ad	29	active	swollen testes
[illegible]	E. min	0402	♀	Ad	33	inactive	—
[illegible]	E. min	0001	♂	Ad	30	active	swollen testes
[illegible]	E. min	0405	♂	Ad	32	active	"
[illegible]	E. min	0032	♀	Ad	35	inactive	—
[illegible]	E. min	0040	♂	Ad	30	active	swollen testes
[illegible]	P. man	0001	♂	Ad	19	inactive	—
[illegible]	E. min	0050	♂	Ad	29	active	swollen testes
[illegible]	E. min	0405	♂	Ad	31	active	"
[illegible]	P. man	1050	♂	Ad	18	inactive	—
[illegible]	E. min	1010	♀	Ad	35	"	—

*e.g. taxonomic characteristics, physical condition of animal, etc.

[illegible]

(Snake Hope [illegible]) [illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Mixed Brush Grid # E Transect [illegible] Day [illegible]

Date, time traps set 25 Ma[illegible] 1975 0545 Date, time traps checked 26 Ma[illegible] 1975 [illegible]

Last toe clip # used on previous day 0350 Field Analyst(s) [illegible]

[illegible] QA Check [illegible]

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Body Weight	Reprod. Status	Additional Notes*
[illegible]	P. [illegible]	0015	♀	Ad	31	[illegible]	[illegible]
[illegible]	P. [illegible]	0210	♂	Ad	29	[illegible]	[illegible]
[illegible]	P. [illegible]	0630	♀	Ad	36	[illegible]	[illegible]
[illegible]	P. [illegible]	0305	♂	Ad	30	[illegible]	[illegible]
[illegible]	P. [illegible]	0230	♀	Ad	25	[illegible]	[illegible]
[illegible]	P. [illegible]	0001	♂	Ad	27	active	[illegible]
[illegible]	P. [illegible]	3000	[illegible]	Ad	15	[illegible]	[illegible]
[illegible]	P. [illegible]	2400	♂	Ad	31	active	[illegible]
[illegible]	P. [illegible]	[illegible]	♀	Ad	[illegible]	[illegible]	[illegible]
[illegible]	P. [illegible]	0103	♂	Ad	30	[illegible]	[illegible]
[illegible]	P. [illegible]	0040	♀	Ad	20	[illegible]	[illegible]
[illegible]	P. [illegible]	2001	♂	Ad	16	[illegible]	[illegible]
[illegible]	P. [illegible]	0030	♂	Ad	26	active	[illegible]
[illegible]	P. [illegible]	0301	♂	Ad	24	[illegible]	[illegible]

*For example ectoparasites, physical condition of animal, etc.

[illegible] PROGRESS REPORT

[illegible] 4 [illegible] [illegible] 2-18 [illegible]

[illegible] LIVE TRAPPING FIELD DATA SHEET

[illegible] Grid # F Project [illegible] Trap Night 3

[illegible] traps set 25 May [illegible] Date, time traps checked 26 May [illegible]

[illegible] clip # used on previous day [illegible] Field Analyst(s) [illegible]

QA check [illegible]

[illegible]	Species	Toe Clip No.	Sex	Age Class	Weight	Reprod. Status	Additional Notes*
[illegible]	P. maniculatus	3010	♂	A	30 gm	[illegible]	—
[illegible]	P. man.	3020	♂	A	31	"	—
[illegible]	P. man.	3020	♂	A	30	"	—
[illegible]	P. maniculatus	0170	♀	A	21	inactive	—
[illegible]	S. [illegible]	[illegible]	♂	A	116	"	—
[illegible]	P. man.	2200	♀	A	—	[illegible]	[illegible] [illegible]
[illegible]	P. man.	3005	♂	A	23	"	[illegible]
[illegible]	P. man.	3040	♀	A	32	inactive	—
[illegible]	P. man.	3050	♂	A	[illegible]	[illegible]	—
[illegible]	P. man.	0402	♀	A	[illegible]	[illegible]	—
[illegible]	P. man.	[illegible]	♀	[illegible]	19	"	[illegible]
[illegible]	P. man.	3100	♀	A	36	"	
[illegible]	P. man.	1850	♂	A	21	"	—
[illegible]	P. maniculatus	3200	♂	A	25	"	Dead
					[illegible]	—	
[illegible]	P. man.	[illegible]	♀	A	[illegible]	[illegible]	—

* [illegible], physical condition of animal, etc.

[illegible]

[illegible] (8000') C. 5 [illegible] - 76 [illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

[illegible] Douglas Fir Grid # F Project 83 Trap Night 1

Date, time traps set 5/18/75 (100) Date, time traps checked 5/19/75 [illegible]

Last toe clip # used on previous day 1020 Field Analyst(s) J. Baker

start w/ 1030 QA Check [illegible]

Trap. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight	Reprod. Status	Additional* Notes
H-2	[illegible]	0004	♀	Adult	29 - 12	inactive	none
H-4	C. gapperi	1000	♂	Adult	not obtained	inactive	[illegible]
		[illegible]		change to 1030			
F-11	C. gapperi	1040	♂	Adult	31 - 12	inactive	none
F-11	C. gapperi	4000	♀	Adult	29 - 12	inactive	none
[illegible]	E. minimus	none	♂	Adult	none	active	[illegible]
[illegible]	C. gapperi	1050	♂	Adult	33 - 12	inactive	none
I-7	C. gapperi	1100	♂	Adult	30 - 12	inactive	none

*Any taxonomic characters, physical condition of animal, etc.

[illegible]

[illegible] [illegible] [illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Study Area: Douglas Fir Grid # F Project H3 Trap Night 1

Date, time traps set: 18 May 1975 ([illegible]) Date, time traps checked: 18 May 1975 ([illegible])

Last toe clip # used on previous day: 0201 Field Analyst(s): [illegible]

QA Check: [illegible]

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight	Reprod. Status	Additional* Notes
[illegible]	[illegible]	0202	♂	adult	[illegible]	inactive	[illegible]
[illegible]	[illegible]	0203	♀	adult	31-[illegible]	inactive	[illegible]

* Unusual characters, physical condition of animal, etc.

[illegible] REPRINT

[illegible] [illegible] [illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Area name Douglas Fir Grid # F Project 83 Trap Night 2

Date, time traps set 5/15/85 (1300) Date, time traps checked 5/[illegible]/85 ([illegible])

Last toe clip # used on previous day 0203 Field Analyst(s) K[illegible]

bag wt 12 QA Check [illegible]

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Estimated Body Weight	Reprod. Status	Additional Notes*
[illegible]	[illegible]	[illegible]	♂	A	34 [illegible]	[illegible]	— [illegible]
[illegible]	[illegible]	[illegible]	♂	A	[illegible]	[illegible]	— [illegible]
[illegible]	[illegible]	[illegible]	♀	A	18 30	"	— [illegible]

* e.g. taxonomic characters, physical condition of animal, etc.

[illegible] RECORD

[illegible] [illegible] [illegible] C- 5-1-1-11 -15

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Cell Name Douglas Fir ____ Grid # F ____ Project 83 ____ Trap Night 2 ____

Date, time traps set 5/14/83(2000) ____ Date, time traps checked 5/15/83/(0930) ____

Last toe clip # used on previous day 1100 ____ Field Analyst(s) [illegible] ____

QA Check [illegible] ____

Trap No.	Species	Toe Clip No.	Sex	Age Class	Weight	Reprod. Status	Additional Notes[a]
[illegible]	P. maniculatus	1200	♀	A	42-12	active	[illegible]
[illegible]	P. maniculatus	1300	♂	A	45-12	active	" [illegible]
[illegible]	P. maniculatus	1400	♂	A	45-12	active	" "
[illegible]	C. gapperi	2001	♂	A	83-12	inactive	[illegible]

[a] e.g. diagnostic characters, physical condition of animal, etc.

[illegible]

(... [illegible]) C. [illegible] 16

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Plot Name Douglas Fir Grid # E Project 83 Trap Night 2

Date, time traps set 5/20/75 (1130) Date, time traps checked 5/21/75 1215

Last toe clip # used on previous day 2001 Field Analyst(s) Baker

All traps [illegible] QA Check [illegible]

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight	Reprod. Status	Additional Notes*
[illegible]	C. gapperi	2002	♂	[illegible]	24 [illegible]	[illegible]	—
[illegible]	[illegible]	2003	♀	A	40	[illegible]	—
[illegible]	[illegible]	1200	♂	A	~35	[illegible]	—
	[illegible]						

* taxonomic characters, physical condition of animal, etc.

[illegible]

DRAFT PROGRESS REPORT

[illegible] 2/2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Douglas Fir Grid # F Project 83 Trap Night 3

Date, time traps set 5/20/75(1130) Date, time traps checked 5-21-75 (1315)

Last toe clip # used on previous day 0204 Field Analyst(s) [illegible]

QA Check JB

Grid. Loc.	Species	Toe Clip No.	Sex	Age Class	Total Trap Weight	Reprod. Status	Additional Notes*
E 7	Clethrionomys gapperi	0040?	♂	A	28 gm	NMES?	—
D 6	C. gapperi	2000	♀	A	29	[illegible]	[illegible]

*e.g. taxonomic characters, physical condition of animal, etc.

PUDARP PROGRESS REPORT

Wirth Supl/83 my   Q 5.1-8.12 - 18   1 of 2

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name: Douglas Fir   Grid # E   Project 83   Trap Night 4

Date, time traps set 5/24/75 (1500)   Date, time traps checked 5/25/75 ([illegible])

Last toe clip # used on previous day 2003   Field Analyst(s) Boyer

QA Check JB

Stake Loc.	Species	Toe Clip No.	Sex	Age Class	Animal + Trap Weight	Reprod. Status	Additional* Notes
E-1	C. gapperi	2004	♀	A	19 mm	active	swollen vulva
E-10	C. gapperi	2005	♀	A	17	"	"
E-12	P. maniculatus	1900	♂	A	33	"	" testes
E-[illegible]	P. man.	2010	♂	A	31	"	" "
E-[illegible]	C. gapperi	2001	♂	A	19	inactive	—
E-[illegible]	C. gapperi	2020	♀	A	18	"	—

* taxonomic characters, physical condition of animal, etc.

(ABCSP PROGRESS REPORT)

[illegible] (1200) [illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid name Douglas Fir Grid # E Project 83 Trap Night 4

Date, time traps set 5/24/75 (1420) Date, time traps checked 5/25/75 @ 1130

Last toe clip # used on previous day 6205 Field Analyst(s) Kristol

QA Check VB

bag wt = 14 gm

Grid. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight	Reprod. Status	Additional* Notes
[illegible]	[illegible]	6203	♂	Ad	25	inactive	—
[illegible]	[illegible]	1050	♂	Ad	20	inactive	—

*e.g. taxonomic characters, physical condition of animal, etc.

RCOSP PROGRESS REPORT

[illegible] North Slope (8280') C. 5+1+2+19 = 20 [illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name: [illegible] Grid # 1 Project [illegible] Trap Night 5

Date, time traps set 25 May 1975 (1130) Date, time traps checked 26 May 1975 [illegible]

Toe clip # used on previous day 0204 Field Analyst(s) J. [illegible]

QA Check [illegible]

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight	Reprod. Status	Additional Notes*
[illegible]-3	C. gapperi	0004	♀	A	—	active	swollen vulva
[illegible]	[illegible]	0205	♂	A	—	"	" testes
[illegible]	C. gapperi	0210	♂	A	24 gm	"	" " [illegible]
D-[illegible]	[illegible]	0301	♀	A	—	inactive	—
[illegible]	[illegible] min	2003	♀	A	—	"	—
D-16	[illegible] min	1302	♂	A	—	active	swollen testes
[illegible]-10	[illegible] min	1300	♂	A	—	inactive	Dead
[illegible]-12	[illegible] min	1400	♂	A	—	active	swollen testes
[illegible]-13	C. gapperi	1050	♂	A	—	"	" "

broken scale - [illegible] weights [illegible]

* e.g. taxonomic photographs, physical condition of animal, etc.

[illegible] PROGRESS REPORT

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name [illegible] Grid # F Project [illegible] Trap Night 5

Date, time traps set 25 May 1975 (1900) Date, time traps checked 26 May 1975 ([illegible])

Last toe clip # used on previous day 2050 Field Analyst(s) [illegible]

QA Check [illegible]

Trap Station	Species	Toe Clip No.	Sex	Age Class	Weight	Reprod. Status	Additional Notes*
[illegible]	E. [illegible]	7030	♂	Ad	30 g	active	[illegible]
[illegible]	C. [illegible]	2066	♀	Ad	14 g	non-active	
[illegible]	C. [illegible]	2055	♀	Ad	— "	non-active	no weight [illegible]

* Taxonomic characters, physical condition of animal, etc.

[illegible] PROGRESS REPORT

C, S, 1, Z, 2-0 - 12

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Cell Name Aspen (North Slope) (100') Grid # G Project [illegible] Trap Night 1

Date, time traps set 18 May 1975 [illegible] Date, time traps checked 19 May 1975 [illegible]

Last toe clip # used on previous day none Field Analyst(s) [illegible]

QA Check [illegible]

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight gm	Reprod. Status	Additional Notes*
H-5	Eutamias minimus	—	—	—	—	—	escaped
E-9	[illegible]	0001	♀	Adult	28 - 12 [illegible]	[illegible]	vagina perforate
E-11	C. [illegible]	0002	♀	Adult	29 - 12 [illegible]	[illegible]	none
B-7	[illegible]	0003	♀	Adult	32 - 12 [illegible]	[illegible]	none

*e.g. external characters, physical condition of animal, etc.

[illegible]

D-5-1-2-20 -13 -4

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Arpon (North Slope (Floor)) Grid # 6 Project 53 Trap Night 1

Date, time traps set 5/18 1700 Date, time traps checked 5/19 1800

Last toe clip # used on previous day [illegible] Field Analyst(s) Jim [illegible]

QA Check JB

Capt. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight	Reprod. Status	Additional Notes*
E-12	Eutamias minimus	0103	♀	Adult	51 - 12	inactive	b.f. 25
D-10	Spermophilus [illegible]	0104	♂	Adult	30 - 12	inactive	None

*e.g. taxonomic characters, physical condition of animal, etc.

[DRAFT PROGRESS REPORT]

[illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

(4)

Grid Name [illegible] (North [illegible]) Grid # C Project SF3 Trap Night 2

Date, time traps set 5/19/75 1730 Date, time traps checked 5/20/75 1500

Last toe clip # used on previous day 0103 Field Analyst(s) [illegible]

QA Check: [illegible]

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Weight	Reprod. Status	Additional Notes*
[illegible]	C. gapperi	0004	♂	A	30-12	inactive	none
[illegible]	C. gapperi	0005	♀	A	29-12	"	none
[illegible]	C. gapperi	0010	♀?	A	31-12	"	none
[illegible]	P. maniculatus	0020	♀	A	47-12	"	none
[illegible]	P. maniculatus	0038	♀	A	51-12	"	none
[illegible]	P. maniculatus	0103	♀	A	54-12	"	none

*Any taxonomic characters, physical condition of animal, etc.

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Aspen (Hawkweed) (GIII?) Grid # G Project 83 Trap Size 3

Date, time traps set 5/20/75 (1500) Date, time traps checked 21 May 1975 [illegible]

Activity [illegible] previous day CY/30 Field Analyst(s) T Pil[illegible]

QA Check SB

Trap No.	Species	Tag No.	Sex	Age Class	Weight (grams)	Reprod. Status	Additional Notes*
E-1	Clethrionomys gapperi	0004	M	A	28	INACTIVE	—
[illegible]	C. gapp.	[illegible]	M	A	36	ACTIVE	[illegible]
[illegible]	C. gapperi	0050	M	A	22	INACT.	—
E-4	" "	0100	F	A	21	"	—
[illegible]	C. gapp.	0020	F	A	26	"	—
E-19	C. gapperi	0700	F	A	19	ACT.	[illegible]

*E.g. taxonomic characters, physical condition of animal, etc.

ABOSP PROGRESS REPORT

[illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Site Name: Aspen (North Slope)(R10C) Grid # 6 Project 83 Trap Night 4

Date, time traps set 5/24/75 1600 Date, time traps checked 5/26/75 0830

Last Toe Clip # used on previous day 0230 Field Analyst(s) [illegible]

bag wt.-13 QA Check: JB

Trap No.	Species	Toe Clip No.	Sex	Age Class	Animal Weight	Reprod. Status	Additional Notes[a]
T [illegible]	E. minimus	0000	♀	Ad	36	inactive	—
[illegible]							
03	P. maniculatus	0005	♀	Ad	19	inactive	

[a] Any taxonomic characters, physical condition of animal, etc.

[illegible] PROGRESS REPORT

C-5-1621-CQ-11 (?)

24

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name Aspen Slope (North End) Grid # 6 Project 83 Trap Night 4

Date, time traps set 24 May 1975 1000 Date, time traps checked 5/25/75 1825

Last toe clip # used on previous day 0104 Field Analyst(s) Baker

QA Check JB

Trap No.	Species	Toe Clip No.	Sex	Age Class	Animal Weight gm	Reprod. Status	Additional* Notes
F-2	E. minimus	1005	♀	A	39	Pregnant	—
F-2	E. min	0105	♀	A	38	inactive	—
F-1	E. min	0201	♀	A	36	"	—
[illegible]	C. gapperi	0202	♀	A	18	"	—
[illegible]	E. min	0203	♂	A	36	active	swollen testes
[illegible]	C. gapperi	0204	♀	A	16	"	" vulva
F-13	E. [illegible]	0030	♀	A	39	inactive	—
F-11	E. min	0103	♀	A	40	"	

* Taxonomic characters, physical condition of animal, etc.

INTERIM PROGRESS REPORT

C-5-1-2-20 - 16

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Site Name Aspen/[illegible] ([illegible]) Grid # 6 Project [illegible] Trap Night 5

Date, time traps out 25 May 1975 [illegible] Date, time traps checked 26 May 1975 [illegible]

Last toe clip # used on previous day 0234 Field Analyst(s) [illegible]

Bag weight = 12 g

QA Check [illegible]

Trap Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight	Reprod. Status	Additional Notes[a]
11-5	C. gapperi	[illegible]	♀	Ad	26 g	[illegible]	none
[illegible]	C. gapperi	[illegible]	♂	Ad	18 g	inactive	none
[illegible]	C. gapperi	[illegible]	♀	Ad	34 g	inactive	none
[illegible]	C. gapperi	[illegible]	♀	Ad	[illegible]	inactive	none
5-7	C. gapperi	[illegible]	♂	Ad	19 g	[illegible]	none
[illegible]	C. gapperi	[illegible]	♀	Ad	37 g	inactive	none
5-4	C. gapperi	[illegible]	♂	Ad	19 g	active	[illegible]

[a] Any taxonomic characters, physical condition of animal, etc.

[illegible] REPORT

(North Slope [illegible]) [illegible]

SMALL MAMMAL LIVE TRAPPING FIELD DATA SHEET

Grid Name: Aspen Date & [illegible] Project 53 Trap Night 5

Date, time traps set [illegible] ([illegible]) Date, time traps checked [illegible] ([illegible])

Last toe clip # used on previous day 03000 Field Analyst(s) Baker

QA Check [illegible]

Coord. Loc.	Species	Toe Clip No.	Sex	Age Class	Animal Weight (g)	Reprod. Status	Additional Notes*
[illegible]	E. minimus	0025	♀	A	—	inactive	—
[illegible]	E. minimus	0400	♂	A	15	"	—
[illegible]	E. min	0100	♂	A	—	active	swollen testes
[illegible]	E. min	0201	♀	A	—	"	" vulva
[illegible]	E. min	02003	♂	A	—	"	" testes
[illegible]	E. min	1000	♂	A	88	"	" "
[illegible]	E. min	2000	♀	A	36	"	" vulva
[illegible]	E. min	0030	♀	A	—	inactive	—
[illegible]	E. min	3000	♂	A	27	active	swollen testes
[illegible]	E. min	4000	♂	A	39	"	" "

*Diagnostic characters, physical condition of animal, etc.

ADDSP PROGRESS REPORT

[illegible] SMALL MAMMAL PITFALL FIELD DATA SHEET [illegible]

Pitfall Number 4 Location [illegible]

Trapping Period [illegible] Project Number 93 Checked by [illegible]

Date[1]	Species	Sex	Age	Comments[2]
[illegible]	NO CAPTURES			
[illegible]	NO CAPTURES			
[illegible]	NO CAPTURES			
[illegible]	NO CAPTURES			
[illegible]	NO CAPTURES			

[2] Reproductive condition, diagnostic characters, future use of specimens, etc.

[illegible] SMALL MAMMAL PITFALL FIELD WORK SHEET

[illegible] Number B Location South D.T. [illegible]

[illegible] Date [illegible]-75 Project Number 53 Checked By [illegible]

[illegible]	Species	Sex	Age	Comments*
[illegible]-75	No captures			
[illegible]	No captures			
[illegible]/75	no captures			
[illegible]/75	no captures			
[illegible]/75	no captures			

*Reproductive condition, diagnostic characters, future use of specimens, etc.

[illegible] FIELD DATA SHEET

[illegible] Number C Location North Facing Ridge

[illegible] Period May 75 Project Number 83 Checked by [illegible]

Date	Species	Sex	Age	Comments
[illegible]	NO CAPTURES			
[illegible]	NO CAPTURES			
[illegible] 75	NO CAPTURES			
21 May 75	NO CAPTURES			
22 May 75	NO CAPTURES			

[illegible] condition, diagnostic characters, future use of [illegible]

SMALL MAMMAL PITFALL FIELD DATA SHEET

Pitfall Number D Location Remnant Sage

Sampling Period May 75 Project Number 83 Checked by [illegible]

Date	Species	Sex	Age	Comments*
19 May 75	No captures			
20 May 75	No captures			
21 May 75	No captures			
22 May 75	No captures			
23 May 75	[illegible]		M	[illegible]

*Reproductive condition, diagnostic characters, future use of specimens, etc.

SMALL MAMMAL PITFALL FIELD DATA SHEET

Pitfall Number E Location Mixed Brush

Sampling Period 1 Project Number 83 Checked By JB, [illegible]

Date	Species	Sex	Age	Comments*
5/19	No captures			
5/20	No captures			
5/21	No captures			
5/22	No captures			
5/2[illegible]	No captures			

*Reproductive condition, diagnostic characters, future use of specimens, etc.

5.3.2-1

SMALL MAMMAL PITFALL FIELD DATA SHEET

Pitfall Number F Location [illegible]

Sampling Period 1 Project Number 13 Checked By [illegible]

Date	Species	Sex	Age	Comments*
5/19	No captures			
5/20	No captures			
5/21	No captures			
5/23	No captures			
5/24	No captures			

*Reproductive condition, diagnostic characters, future use of specimens, etc.

SMALL MAMMAL PITFALL FIELD DATA SHEET - 5.3.2-10

Pitfall Number: 1 Location Bottomland Meadow

Trapping Period [illegible] Project Number B3 Checked By T. Turner / T. Dyke

Date	Species	Sex	Age	Comments*
[illegible]	Microtus [illegible]	[illegible]	Ad	Wander
"	" "	?	"	"
"	" "	?	"	"
[illegible]	Microtus [illegible]	?	Ad	[illegible]
[illegible]/75	Thomomys talpoides			
[illegible]/75	No Captures			
[illegible]	No Captures			

*Reproductive condition, diagnostic characters, future use of specimens, etc.

5.3.2-11

[illegible] SMALL MAMMAL PITFALL FIELD DATA SHEET

Pitfall Number 2 Location Bothill Sage

Sampling Period May 75 Project Number 83 Checked By Sage

Date	Species	Sex	Age	Comments*
19 May 75	NO CAPTURES			
20 May 75	NO CAPTURES			
21 May 75	No CAPTURES			
22 May 75	No CAPTURES			
23 May 75	Perognathus apache			Voucher

*Reproductive condition, diagnostic characters, future use of specimens, etc.

SMALL MAMMAL PITFALL FIELD DATA SHEET 5.3.6-1?

[illegible] Number 3 Location Rabbit Brush

[illegible] Period 1 May 1975 Project Number 83 Checked By Turner / [illegible]

Date	Species	Sex	Age	Comments*
[illegible]/75	NO CAPTURES			
[illegible]	NO CAPTURES			
[illegible]/75	NO CAPTURES			
[illegible]/75	no capture			
[illegible]	no capture			

*Reproductive condition, diagnostic characters, future use of specimens, etc.

SMALL MAMMAL PITFALL FIELD DATA SHEET 5.3.2-14

Pitfall Number 4 Location P-J [illegible] (Bright [illegible])

Sampling Period 3 Project Number 83 Checked By [illegible]

Date	Species	Sex	Age	Comments*
5/19/75	No captures			
5/20/75	no captures			
5/21/75	No captures			
5/22/75	no captures			
5/23/75	no captures			

* Reproductive condition, diagnostic characters, future use of specimens, etc.

[illegible] SMALL MAMMAL PITFALL FIELD DATA SHEET 5.3.2-H

Pitfall Number 6 Location Morse [illegible] / sage

Sampling Period May 75 Project Number 83 Checked By [illegible]

Date	Species	Sex	Age*	Comments*
19 May 75	NO CAPTURES			
20 May 75	P. [illegible] ? Perognathus apache	?	?	[illegible]
21 May 75	[illegible]			
22 May 75	No CAPTURES			
23 May 75	No CAPTURES			

*Reproductive condition, diagnostic characters, future use of specimens, etc.

SMALL MAMMAL PITFALL FIELD DATA SHEET

5-Set 1?

Pitfall Number 7 Location Upland Meadow

Trapping Period 1 Project Number 83 Checked By GRR, JB

Date	Species	Sex	Age	Comments*
5/19	No captures			
5/20	No captures			
5/21	No captures			
5/23	No captures			
5/24	No captures			

*Reproductive condition, diagnostic characters, future use of specimens, etc.

5-3.2-16

[illegible] SMALL MAMMAL PITFALL FIELD DATA SHEET

Pitfall Number 8 Location Stokes Springs Riparian

Sampling Period May 75 Project Number 82 Checked By [illegible]

Date	Species	Sex	Age	Comments*
		—	—	—
19 May 75	No captures			
20 May 75	No CAPTURES			
21 May 75	No captures			
23 May 75	No Captures			
24 May 75	No Captures			

*Reproductive condition, diagnostic characters, future use of specimens, etc.

[illegible]

ROCKY PROGRESS REPORT

REPRODUCTIVE STATUS DATA SHEET

Project 83 Date 20 May 1975 Investigator [illegible]

Location T2S, R10W, S15 SW Habitat Aspen

Capture Technique Snap-trap

Comments

Species Microtus longicaudus

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	164	55	20	12	28g	multiparous	0	0	0	0	
B	153	44	20	12	24g	multiparous	0	0	0	0	[illegible]
C	155	50	21	14	26g	multiparous	0	0	0	0	[illegible]
D											
E											

Species

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A											
B											
C											
D											
E											

Species

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A											
B											
C											
D											
E											

[illegible] PROGRESS REPORT

J.B.

REPRODUCTIVE STATUS DATA SHEET

Project 83 Date 26 May 1975 Investigator [illegible]

Location T33 R96W, S8 NW Habitat Sage

Capture Technique Snap trap.

Comments

Species Eutamias minimus

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	185	85	28	14	37.7g	active	2	3	0	0	primaparous
B	198	86	29	13	[illegible]		-	-	-	-	nulliparous
C											
D											
E											

Species Peromyscus maniculatus

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	153	59	18	14	[illegible]	X	0	0	0	0	nulliparous
B	173	70	19	18	24.4g		0	0	3	0	very old scars
C	167	64	20	16	24.5g		0	0	3	3	recent scars
D											
E											

Species

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A											
B											
C											
D											
E											

ROUGH PROGRESS REPORT

C.S.P.R.E.W.F.S.

REPRODUCTIVE STATUS DATA SHEET

Project 83 Date 22 May 1975 Investigator [illegible]

Location T1J, R99W, S36 NW Habitat [illegible]

Capture Technique Snap-trap

Comments

Species *Peromyscus maniculatus*

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	174	72	19	13	20		–	–	4	3	scars recent
B	154	60	20	15	21	nulliparous	–	–	–	–	
C	90	"	19	16	20		2	2	–	–	emb. 5 mm
D	165	65	20	16	22		4	1	–	–	emb. 4 mm
E											

*C – P. man – missing tail

Species *Peromyscus truei*

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	167	64	19	20	19		2	3	4	0	embryos 3 mm
B											
C											
D											
E											

Species *Eutamias minimus*

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	199	87	28	13		active	3	4			not [illegible]
B ♂	184	83	29	13	37.5	—	–	–	–	–	tot 0305
C	162	85	28	12	37.5	active	5	2	0	0	0002 emb. [illegible]
D	163	55	29	13	33.8	active	3	4	0	0	0021 emb. 5 mm
E											

C.5.2.22.1-1

[illegible] PROGRESS REPORT

REPRODUCTIVE STATUS DATA SHEET

Project 83 Date 10 May 1975 Investigator GAR

Location T25, R100W, S15 NW Habitat Mixed forest

Capture Technique Snaptraps

Comments

Species *Eutamias minimus*

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	198	80	30	15	46.2		5	2	–	–	12 mm.
B	194	90	30	12	27.6	X					nulliparous
C	195	59	28	12	32.9	X					nulliparous
D	200	84	28	12							nulliparous
E											

+TC 0004

Species *Peromyscus maniculatus*

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	155	66	19	18	18.0		–	–	–	–	
B											
C											
D											
E											

Species

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	199										
B											
C											
D											
E											

G5.2.2.2.1-5

FROM FIELD [illegible] REPORT

REPRODUCTIVE STATUS DATA SHEET

Project B3 Date 23 May 1976 Investigator [illegible]

Location T2S, R63W, S35B Habitat North 4-3

Capture Technique Snap trap

Comments ——

Species *Peromyscus maniculatus*

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	167	67	20	17	30g		3	3	0	0	Size 20 mm
B											
C											
D											
E											

Species

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A											
B											
C											
D											
E											

Species

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A											
B											
C											
D											
E											

NGCSP PROGRESS REPORT

[illegible]

REPRODUCTIVE STATUS DATA SHEET

Project 85 Date 23 May 1975 Investigator [illegible]

Location T 18, R 86W, S 35 SW Habitat Greasewood - Sage

Capture Technique Snap Trap

Comments ________________________________

Species Eutamias minimus

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	182	85	28	14	36g	multiparous					
B	195	86	28	14	31g	multiparous					
C	205	90	31	15	33g	multiparous					
D	203	89	29	13	37g	multiparous					
E	200	81	28	14	44g	—	3	3	0	0	Embryo 27mm

Species Peromyscus maniculatus

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A	170	76	17	18	21g		3	3	0	0	
B	165	81	17	15	22g		7	3	0	0	
C	145	58	19	14	15g	multiparous					
D	160	67	20	16	24g	multiparous					
E											

Species ________________________________

	TL	T	HF	E	grams	Inactive	Embryos R	Embryos L	Placental Scars R	Placental Scars L	Comments
A											
B											
C											
D											
E											

C.5.2.2.1,3-1

STOMACH ANALYSIS DATA SHEET

Project 83 Date 25 May Investigator GMC

Location T15, 99W, S35 SW Habitat grassland

Capture Technique Snap-trap

Comments analyzed in field

Species Peromyscus maniculatus

	A	B	C	D	E
1	S	S	S	S	
2	S	S	S	S	
3	Su	S	S	S	
4	S	Su	Ve	S	
5	S	S	S	S	
6	S	S	S	S	
7	S	S	Su	S	
8	S	S	S	S	
9	S	S	S	S	
20	Su	S	S	S	

	A	B	C	D	E
11	S	S	S	Su	
12	S	S	S	S	
13	S	S	S	Ve	
14	S	S	S	S	
15	S	S	S	S	
16	S	S	Su	S	
17	S	S	S	S	
18	S	S	S	S	
19	S	Su	S	I	
30	S	S	S	S	

	A	B	C	D	E
21	S	S	S	S	
22	S	Su	Su	S	
23	S	Su	S	S	
24	S	S	Su	S	
25	S	S	S	S	
26	S	S	S	S	
27	S	Su	S	S	
28	S	S	S	S	
29	S	S	S	S	
30	I	S	S	S	

	A	B	C	D	E
31	S	S	Su	S	
32	S	S	S	S	
33	S	S	V	S	
34	S	S	S	S	
35	S	S	S	S	
36	S	Su	[illegible]	[illegible]	
37	I	S	[illegible]	S	
38	S	S	Su	S	
39	S	S	S	Su	
40	S	S	S	[illegible]	

	A	B	C	D	E
41	S	S	S	Su	
42	S	S	[illegible]	S	
43	S		S	S	
44	S	Su	S	S	
45	Su	S	S	Su	
46	[illegible]	[illegible]	S	S	
47	[illegible]		S	S	
48	S	[illegible]	S	S	
49	S	S	S	S	
50	S	S	S	S	

	Measurements						Food Categories %				
	Sex	TL	T	HF	E	grams	–	V	I	Su	S
A	♀	170	76	17	18	21.0	0	0	4	6	90
B	♀	165	61	17	15	22.0	0	0	0	16	84
C	♀	156	57	18	16	15.3	0	4	0	16	90
D	♀	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	2	2	10	86
E											

Food Categories	Symbol	Total % F
Empty fields	–	0 %
Vertebrate	V	1.5 %
Invertebrate	I	1.5 %
Succulent	Su	12.0 %
Seed	S	85.0 %

[illegible] RESOURCES REPORT

C.5.2.2.1.5-2

STOMACH ANALYSIS DATA SHEET

Ecology Consultants, Inc.

Project 53 Date 23 May 75 Investigator GAR

Location T.15, (99 W) (85 SW) Habitat Greasewood Sage

Capture Technique Snap-trap

Comments none

Species Eutamias minimus

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	S	S	S	S	S	11	S	S	Su	S	S	21	Su	S	S	S	S	31	S	S	S	S	S	41	S	S	I	S	S
2	S	S	S	Su	S	12	S	S	Su	S	S	22	Su	Su	S	S	S	32	Su	S	S	S	Su	42	S	S	S	S	S
3	S	S	Vh	S	S	13	S	S	S	Su	Su	23	S	S	S	S	S	33	S	S	S	S	S	43	S	S	S	S	S
4	Su	S	S	S	S	14	S	Su	Su	Su	S	24	S	S	S	S	S	34	S	S	Su	S	S	44	S	S	S	S	S
5	Su	S	S	S	S	15	S	S	S	S	Su	25	S	S	S	S	S	35	S	S	S	[illegible]	S	45	Su	S	S	S	Su
6	S	S	S	Su	S	16	S	S	S	[illegible]	Su	26	S	S	S	S	Su	36	S	S	S		S	46	S	S	S	S	S
7	S	Su	S	S	S	17	S	[illegible]	S	S	S	27	S	S	S	S	S	37	S	S	S	S	S	47	S	S	S	S	S
8	S	S	S	S	S	18	S	S	Su	S	S	28	S	S	S	S	S	38	S	S	Su	S	S	48	S	S	S	S	S
9	S	S	S	S	S	19	S	S	S	Vh	S	29	S	S	S	S	S	39	S	S	Su	S	S	49	S	S	S	S	S
10	Su	S	S	S	S	20	S	S	S	S	S	30	S	Su	S	Vh	S	40	S	S	S	S	S	50	S	S	S	S	S

Measurements						Food Categories %				
	Sex	TL	T	HF	E	grams	-	V	I	Su	S
A	♀	182	85	28	14	36	0	0	0	14	86
B	♀	195	86	30	16	31	0	0	0	8	92
C	♀	205	96	31	15	33	0	2	2	12	84
D	♀	205	89	29	13	37	0	4	0	8	88
E	♀	[illegible]	[illegible]	[illegible]	[illegible]	34	0	0	0	10	90

Food Categories	Symbol	Total % F
Empty fields	-	0%
Vertebrate	V	1.2%
Invertebrate	I	.4%
Succulent	Su	10.4%
Seed	S	88.0%

ROUGH PROGRESS REPORT

STOMACH ANALYSIS DATA SHEET

Academy of [illegible]

Project 83 Date 19 May 1975 Investigator Bick / Reyes

Location T25 R99W S3 SE Habitat north facing P.J.

Capture Technique snap - traps

Comments ————

Species Peromyscus maniculatus

	A	(B)	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1		S	S	S		11		S	Su	S		21		S	S	S		31		Su	S	S		41	—	Su	S	S	
2		S	S	S		12		S	S	S		22		S	S	S		32		S	S	S		42		Su	S	S	
3		Su	S	S		13		S	S	Su		23		I	Su	S		33		S	S	S		43		S	S	S	
4		Su	S	Su		14		Su	S	S		24		S	S	S		34		S	S	I		44		S	S	S	
5		Su	S	S		15		Su	Su	S		25		Su	S	S		35		S	S	S		45		S	S	S	
6		S	S	S		16		S	S	S		26		S	S	S		36		S	S	S		46		Su	S	S	
7		S	S	S		17		S	S	S		27		Su	S	S		37		Su	S	S		47		Su	I	S	
8		S	S	S		18		Su	S	S		28		S	Su	S		38		S	I	S		48		S	S	Su	
9		S	S	S		19		S	S	S		29		S	S	S		39		Su	S	S		49		S	S	S	
10		S	S	S		20		S	Su	S		30		Su	S	S		40		Su	S	Su		50		Su	S	S	

Measurements							Food Categories %				
	Sex	TL	T	HF	D	grams	–	V	I	Su	S
~~A~~	~~♂~~	~~110~~	~~71~~	~~21~~	~~11~~	~~19.8~~	—	—	—	—	—
B	♂	165	67	19	15	24.9	0	0	2	36	62
C	♂	146	59	20	15	15.6	0	0	4	10	86
D	♀	167	67	20	17	30.0	0	0	2	8	90
E											

Food Categories	Symbol	Total % F
Empty fields	–	0%
Vertebrate	V	0%
Invertebrate	I	2.67%
Succulent	Su	18.0%
Seed	S	79.3%

A: stomach is empty!

GROUP PROGRESS REPORT

C.5.22.1.3-4

STOMACH ANALYSIS DATA SHEET

ecology consultants, inc.

1B

Project 83 Date 22 May 75 Investigator GAR

Location T1S, R92W, S36 NW Habitat pinyon - juniper (South Slope)

Capture Technique Snap Trap

Comments Stomach B - empty; analysis done in field

Species *Peromyscus maniculatus*

(B — empty stomach)

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	S	-	S	S	Su	11	S	-	S	Su	S	21	S	-	S	S	S	31	Su	-	S	S	I	41	S	-	S	Su	Su
2	Su	-	S	S	S	12	S	-	Su	Su	S	22	Su	-	Su	S	S	32	Su	-	S	S	S	42	S	-	S	S	Su
3	S	-	-	S	I	13	S	-	S	Su	S	23	S	-	-	Su	S	33	Su	-	S	S	S	43	S	-	S	S	S
4	S	-	S	S	S	14	Su	-	S	I	S	24	S	-	Su	Su	S	34	S	-	S	S	S	44	S	-	S	S	Su
5	S	-	S	I	S	15	Su	-	S	S	S	25	S	-	Su	S	S	35	Su	-	S	S	S	45	Su	-	S	S	S
6	S	-	-	I	S	16	-	-	-	S	S	26	Su	-	S	S	I	36	S	-	S	I	S	46	Su	-	S	S	I x
7	S	-	Su	Su	S	17	Su	-	S	S	S	27	Su	-	Su	Su	-	37	S	-	S	-	S	47	S	-	S	S	I
8	S	-	Su	Su	S	18	S	-	S	S	S	28	Su	-	S	-	S	38	Su	-	S	S	S	48	S	-	S	S	S
9	Su	-	Su	S	S	19	Su	-	S	S	S	29	S	-	-	S	Su	39	Su	-	S	S	S	49	S	-	Su	S	S
10	S	-	-	I	I	20	Su	-	I	S	S	30	Su	-	Su	S	S	40	S	-	S	S	I	50	Su	-	S	S	S

x ejected -

	Measurements						Food Categories %				
	Sex	TL	T	HF	E	grams	-	V	I	Su	S
A	♀	176	72	19	13	20.0	2	0	0	42	56
~~B~~	~~♀~~	~~154~~	~~60~~	~~20~~	~~15~~	~~21.0~~	-	-	-	-	-
* C	♀	96	-	19	16	20.0	12	0	2	20	66
D	♀	165	65	20	16	22.0	4	0	10	18	68
E	♂	167	62	21	18	22.0	2	0	14	10	74

Food Categories	Symbol	Total % F
Empty fields	-	5.0%
Vertebrate	V	0 %
Invertebrate	I	6.5%
Succulent	Su	22.5%
Seed	S	66.0%

RODOP PROGRESS REPORT

STOMACH ANALYSIS DATA SHEET

6.0.6.2.1.3-2

ecology consultants, inc.

28

Project 85 Date 20 May 1975 Investigator Germaine Reyes

Location T2S, R106W, S15SW Habitat Aspen

Capture Technique Snap trap

Comments * Animal #D had only peanut butter, another specimen was done in its place

Species Microtus longicaudus

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	S	S	S		S	11	Su	S	S		S	21	S	S	—		S	31	S	S	S		S	41	S	S	S		S
2	S	S	S		S	12	S	S	S		S	22	S	S	S		S	32	S	S	S		S	42	S	S	S		S
3	S	S	S		S	13	S	S	S		S	23	S	S	S		S	33	S	S	S		S	43	S	S	S		S
4	S	S	S		S	14	S	S	S		V-h	24	S	S	S		S	34	S	S	S		S	44	S	S	S		S
5	Su	S	S		S	15	S	S	Su		S	25	S	S	S		S	35	Su	S	S		S	45	S	S	S		—
6	S	S	S		S	16	S	S	S		S	26	S	S	S		S	36	S	S	S		S	46	S	S	S		S
7	S	S	S		S	17	S	Su	S		S	27	S	S	S		S	37	S	S	S		S	47	S	S	S		S
8	S	S	S		S	18	S	S	S		S	28	S	S	S		S	38	S	S	S		S	48	S	S	S		S
9	S	S	S		S	19	S	S	S		S	29	S	S	S		S	39	S	S	S		S	49	S	S	S		S
10	S	S	S		S	20	S	S	S		S	30	S	S	S		S	40	S	S	S		S	50	S	S	S		S

Measurements							Food Categories %				
	Sex	TL	T	HF	E	grams	-	V	I	Su	S
A	♀	164	55	20	12	28.0	0	0	0	6	94
B	♂	174	55	20	12	28.0	0	0	0	2	98
C	♂	175	55	20	13	31.0	2	0	0	2	96
D	♀	163	44	20	12	24.0	-	-	-	-	-
E	♀	153	50	21	14	26.0	2	2	0	0	96

Food Categories	Symbol	Total % F	
Empty fields	-	1%	1%
Vertebrate	V	.05%	.05
Invertebrate	I	0%	0%
Succulent	Su	2.5%	2.5
Seed	S	96.0%	96

C.5.22.1.3-6

GUOSP PROGRESS REPORT

STOMACH ANALYSIS DATA SHEET

ecology consultants, inc.

JB

Project : 83 Date 12 June 1975 Investigator gfR

Location T2S, R99W, S4 NW Habitat Sage

Capture Technique snap trap

Comments none

Species *Peromyscus maniculatus*

I = lepidoptera larvae brown w bristles

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	I	Su	Su	S	S	11	I	Su	I	S	I	21	I	Su	Su	Su	S	31	I	Su	S	S	S	41	I	S	S	I	S
2	I	S	I	Su	S	12	I	Su	S	S	S	22	I	S	Su	S	S	32	I	Su	S	S	S	42	S	Su	S	S	S
3	I	Su	I	S	S	13	I	Su	S	Su	S	23	Su	Su	Su	S	S	33	I	S	I	S	S	43	Su	Su	S	Su	S
4	S	Su	Su	S	S	14	Su	Su	S	Su	S	24	I	Su	S	I	S	34	I	Su	S	I	Su	44	I	Su	S	S	I
5	I	Su	S	S	Su	15	Su	Su	Su	I	S	25	I	Su	S	S	Su	35	S	Su	S	I	I	45	I	Su	S	S	S
6	I	Su	Su	I	S	16	Su	Su	S	I	S	26	I	Su	S	S	S	36	Su	S	I	Su	Su	46	I	Su	Su	S	S
7	I	Su	Su	S	?	17	I	Su	S	S	Su	27	S	Su	I	Su	S	37	I	Su	S	S	Su	47	Su	S	S	Su	S
8	I	Su	Su	S	S	18	I	Su	S	Su	S	28	S	Su	S	I	I	38	I	Su	Su	S	Su	48	I	S	Su	I	Su
9	S	S	Su	S	S	19	I	Su	S	I	S	29	Su	Su	S	I	Su	39	I	Su	S	Su	S	49	Su	Su	V	S	Su
10	S	Su	Su	I	S	20	Su	I	S	I	S	30	I	Su	S	I	Su	40	I	Su	Su	S	Su	50	I	Su	S	S	S

	Measurements						Food Categories %				
	Sex	TL	T	HF	E	grams	-	V	I	Su	S
A	♀	167	64	20	16	24.5	0	0	66	22	12
B	♀	173	70	19	18	24.6	0	0	2	84	14
C	♂	165	70	20	18	23.5	0	2	12	30	56
D	♂	151	64	19	17	20.1	0	0	28	22	50
E	♂	167	70	21	16	19.1	0	0	8	24	68

Ditton

Food Categories	Symbol	Total % F
Empty fields	-	0%
Vertebrate 1	V	.40%
Invertebrate 1+6+14+4+33	I	23.2%
Succulent 4+2+15+11+12+11	Su	36.4%
Seed 7+28+25+34	S	40.0%

REBOP PROGRESS REPORT

C.5.2.2.1.5-7

STOMACH ANALYSIS DATA SHEET

ecology consultants, inc.

2B

Project 83 Date 20 May 1975 Investigator GAR

Location T2S R 99W, S4 NW Habitat Sage

Capture Technique Snap-trap

Comments A- was a yellow succulent, probably flower petals

Species *Eutamias minimus*

Inver this head → (row 6)

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	Su	Su	S	S		11	Su	S	S	Su		21	Su	Su	S	S		31	Su	Su	Su	Su		41	Su	Su	I	S	
2	Su	Su	S	S		12	Su	S	Su	Su		22	S	S	S	S		32	Su	Su	S	Su		42	Su	Su	Su	I	
3	Su	Su	S	S		13	Su	S	Su	S		23	Su	S	S	Su		33	Su	Su	Su	Su		43	Su	Su	I	Su	
4	Su	Su	Su	S		14	Su	Su	Su	S		24	Su	S	S	S		34	Su	S	Su	Su		44	Su	Su	S	Su	
5	Su	S	S	S		15	Su	Su	Su	S		25	Su	I	S	Su		35	Su	S	Su	S		45	Su	Su	Su	Su	
6	Su	I	S	S		16	Su	S	S	Vh		26	Su	Su	S	S		36	Su	S	S	S		46	Su	S	S	S	
7	Su	Su	S	S		17	Su	S	S	S		27	Su	Su	I	S		37	Su	Su	S	Su		47	Su	S	Su	Su	
8	Su	Su	S	Su		18	Su	S	I	Su		28	Su	Su	Su	S		38	S	Su	Su	Su		48	Su	S	S	Su	
9	Su	S	S	I		19	Su	S	S	S		29	Su	Su	Su	S		39	Su	Su	S	Su		49	Su	Su	Su	S	
10	Su	S	S	Su		20	Su	S	S	Su		30	Su	S	Su	S		40	Su	Su	S	Su		50	Su	Su	Su	Su	

	Measurements						Food Categories %				
	Sex	TL	T	HF	E	grams	-	V	I	Su	S
A	♀	195	85	28	14	37.7	0	0	0	100	0
B	♂	180	72	29	15	34.0	0	0	4	54	42
C	♀	198	86	29	13	36.6	0	0	8	36	56
D	♂	187	[illegible]	29	15	353	0	2	4	44	50
E											

Food Categories	Symbol	Total % F
Empty fields	-	0 %
Vertebrate	V	.5 %
Invertebrate	I	4.0 %
Succulent	Su	58.5 %
Seed	S	37.0 %

RBOSP PROGRESS REPORT

C.5.2.2.1.5-8

STOMACH ANALYSIS DATA SHEET

ecology consultants, inc.

JB

Project 83 Date 21 May 75 Investigator GAR

Location T2S, R100W, S15 NW Habitat Mixed Brush

Capture Technique Snap-Trap

Comments none

Species *Peromyscus maniculatus*

	A	B	C	D	E
1	Su	Su	S		
2	Su	Su	S		
3	Su	S	S		
4	Su	S	S		
5	S	S	Su		
6	S	S	Su		
7	S	S	S		
8	S	S	S		
9	Vh	S	S		
10	Su	S	Su		
11	Su	S	S		
12	Su	I	Su		
13	Su	S	S		
14	S	S	Su		
15	S	S	S		
16	S	Su	S		
17	S	I	S		
18	S	S	S		
19	S	S	Su		
20	Vh	S	S		
21	Su	S	Su		
22	Su	S	Su		
23	Su	S	S		
24	Su	S	Su		
25	Su	S	S		
26	Su	S	S		
27	Su	S	Su		
28	Su	S	Su		
29	Su	Su	Su		
30	S	S	S		
31	Su	I	Su		
32	Su	Su	Su		
33	Su	S	S		
34	Su	S	S		
35	Su	S	S		
36	Su	S	S		
37	Su	S	S		
38	S	S	S		
39	S	S	S		
40	Su	S	S		
41	Su	S	Su		
42	Su	Vh	Su		
43	Su	S	Su		
44	Su	S	Su		
45	Su	S	Su		
46	S	I	S		
47	Vh	S	S		
48	S	I	Su		
49	Su	S	S		
50	S	S	Su		

	Measurements						Food Categories %				
	Sex	TL	T	HF	E	grams	-	V	I	Su	S
A	♂	154	64	19	19	16	0	6	0	62	32
B	♂	171	70	21	18	26	0	2	10	10	78
C	♂	162	66	19	18	19	0	0	0	42	58
D											
E											

Food Categories	Symbol	Total % F
Empty fields	-	0%
Vertebrate	V	2.6%
Invertebrate	I	3.3%
Succulent	Su	38.0%
Seed	S	56.0%

RBOSP PROGRESS REPORT

STOMACH ANALYSIS DATA SHEET

ecology consultants, inc.

Project 83 Date 21 May 75 Investigator GAR

Location T2-S, R100W, S15 NW Habitat Mixed Brush

Capture Technique Snap-Trap

Comments none

Species *Eutamias minimus*

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	Su	S	S			11	S	S	S			21	S	Su	S			31	Su	Su	S			41	Su	Su	S		
2	Su	S	S			12	Su	S	S			22	Su	Su	S			32	Su	Su	Su			42	Su	S	S		
3	Su	S	S			13	Su	S	S			23	Su	Su	S			33	Su	Su	S			43	Su	S	S		
4	Su	S	S			14	Su	S	S			24	Su	Su	S			34	Su	Su	S			44	Su	S	S		
5	Su	S	S			15	Su	S	S			25	Su	S	S			35	S	Su	S			45	Su	S	S		
6	S	S	S			16	Su	Su	S	S		26	Su	S	S			36	Su	S	S			46	Su	S	S		
7	Su	Vt	S			17	Su	S	S			27	Su	S	S			37	Su	S	S			47	Su	S	S		
8	Su	Su	S			18	Su	S	S			28	Su	S	S			38	Su	S	S			48	Su	Su	S		
9	Su	S	S			19	Su	S	S			29	Su	Su	Su			39	Su	S	S			49	Su	Su	S		
10	Su	S	S			20	Su	S	S			30	Su	S	S			40	S	S	Su			50	Su	Su	S		

	Measurements						Food Categories %				
	Sex	TL	T	HF	E	grams	-	V	I	Su	S
A	♂	196	80	30	15	36	0	0	0	90	10
B	♂	198	79	29	13	33	0	2	0	32	66
C	♀	205	83	28	13	34.9	0	0	0	6	94
D											
E											

Food Categories	Symbol	Total % F
Empty fields	-	0%
Vertebrate	V	.67%
Invertebrate	I	0%
Succulent	Su	42.67%
Seed	S	56.67%

2.3.4--Large Mammals

2.3.4 Large Mammals

2.3.4.1 Introduction

No change has occurred since Progress Report-2. See section 3.6.1 in Progress Report-2 for introduction to the large mammal section.

2.3.4.2 Methods

No change has occurred since Progress Report-2 except for the methods described below. See section 3.6.2 of Progress Report-2 for specific methods used in large mammal studies.

2.3.4.2.1 Mule Deer Migration Studies

2.3.4.2.1.1 Track Counts

Track counts along dirt roads east of Tract C-a are used to supplement the aerial census program to determine mule deer migration routes. Methods used employ modifications of work done by Wright and Swift (1942). The road shown on Figure 2.3-8 is dragged to eliminate existing tracks. The road is examined every other day for a two week period during the same periods that the aerial flights for migration route investigations are conducted. A record of crossing locations, direction of travel and number of tracks is made during each inspection. All new tracks observed are obliterated after each inspection.

2.3.4.2.2 Mule Deer Pellet Group Counts

Pellet group counts have been used by many researchers to indicate population trends, census big game, and determine distribution patterns of big game animals throughout the year or during a specific season (Bennet, English and McCain, 1940; Riney, 1957, Julander, 1958; Harris, 1959). The technique involves counting the number of pellet groups deposited during a known time period on an area of known size. This information, coupled with a knowledge of big game defecation rates, can be used to compute the levels of deer use in an area. Several researchers have published defecation rates and other pertinent information on study design, techniques, and field procedures for big game studies (Rogers, Julander and Robinette, 1958; Smith, 1964; McKean, 1965; and Neff, 1968). Sampling intensities required to produce acceptable population estimates vary according to density of pellet groups, size of area to be sampled, desired accuracy and many other factors.

To provide an estimate of relative use levels of zones in the area of investigation, 13 pellet-group count transects are established in the vicinity of Tract C-a. Nine transects are established off Tract C-a in potential mule deer summer range, and four transects are

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RIO BLANCO OIL SHALE PROJECT

LARGE MAMMALS

mule deer migration count aerial transects

mule deer track count transect

location of pellet plot transects

Figure 2.3-8

0 1/2 1 2 miles

NORTH

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established on Tract C-a (Figure 2.3-8). Statistical tests (Grieb, 1958) are run to determine adequacy of sample and the number of plots necessary to reach a desirable confidence level.

Pellet group sampling sites are randomly selected from possible transects plotted on a topographic map, oriented so they cross contour lines. Orientation in this manner allows sampling the largest number of different aspects, slopes, and vegetation types. A table of random numbers is used to select the transect locations to be established from among the possibilities.

A map showing the selected transect locations is used in the field during the pellet group count transect establishment (Figure 2.3-8). Compasses are used to orient the transects in the proper direction and to check the transect location relative to distinctive land forms.

Each transect consists of 25, 9.3 m^2 (100 ft^2) circular plots spaced at 76.2 m (250 ft) intervals along a straight line course. During transect establishment, a 45.7 cm (18 in) rebar stake is driven into the ground to mark the center of each plot. The distance between plots on the transect is measured with a tape measure along a compass course. An aluminum pole, slipped over the rebar stake, serves as an axis for a rope marked 1.72 m (5.64 ft) from the center of the stake. When the rope is revolved around the pole, the mark delineates the plot boundaries. A short written description of vegetation or landforms is recorded for each plot during transect establishment. This description is amended during later examination periods to include notes on disturbance and seasonal vegetation patterns.

All old pellets are cleared from the plots during the establishment phase. Plots are inspected visually, in two sections clockwise and once counter clockwise, to assure that all groups have been located. Each group observed is removed manually until the plot has been completely cleared of old groups. The procedure is repeated on each established plot. Clearing all old pellet groups during the initial transect work establishes a definite period of pellet group accumulation to be used in calculations.

The plots on Tract C-a are inspected during spring 1975, when weather and ground conditions permit. Pellet groups deposited during the 1974-1975 winter period are counted, removed, and recorded on field data sheets (Figure 2.3-9). Inspections of the plots are done in the same manner as described for plot clearing procedures. To qualify for recording, a pellet group must consist of at least 5 pellets exhibiting the same general shape, color, and consistency. Groups on the edge of a plot are counted only if at least half of the pellets are within the plot boundaries. Pellet groups deposited during summer 1975 are counted and removed during September of that year. After the data have been analyzed, the pellet group program is evaluated to determine its adequacy and a decision is made on whether to continue the program at its present level, expand the program, or delete the program in favor of other techniques such as strip censuses.

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET

Project:__________ Transect:____ Plot Size:____________________

Location:____

Date Pellet Groups Initially Removed:________________________________ Survey No:____________________

Plot No.	Inspector: Date: Pellet Groups Observed	Landscape and Vegetation Information
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
Total		

Figure 2.3-9. Single transect pellet group count field data sheet for RBOSP.

2.3.4.3 Results

Mule deer winter counts were conducted on March 4 and 13 and on April 3 and 14, 1975. A mule deer migration study including both aerial surveys and track counts was conducted during the period April 13 through April 26, 1975. Elk and feral horse aerial surveys were conducted on March 4 and April 14, 1975. Nine new mule deer pellet-group plots were established in areas off of Tract C-a (Figure 2.3-8) during mid-May and the four pellet plots on Tract C-a were inspected during the same time period.

2.3.4.3.1 Mule Deer Winter Aerial Surveys

The number of mule deer observed during late winter aerial surveys on the four census areas is presented in Table 2.3-14 Due to varied backgrounds, weather, and spotting conditions, not all animals within an area are observed during a census flight. Thus Table 2.3-14 does not represent the total number of animals present on the areas during the census periods. Gilbert and Grieb (1957) found that one could consistently count a certain percentage of the deer present for each set of counting conditions. They checked aerial counts with ground drive censuses and found that with poor to fair conditions, an average of 34% of the total deer were counted in aerial censuses; good snow conditions resulted in an average of 45% being counted while 49% of the deer population present was observed when snow conditions were excellent. Visibility of animals also varies with habitat type. The figures should not be used therefore, as absolute numbers, but as relative abundance data to aid the evaluation of the areas within the study area.

The following discussion is based on observations during the aerial censuses conducted in the period March through April, 1975. The majority of the mule deer observed during these census flights were located on the eastern one-half of the east census area. However, small mule deer herds were also observed on Tract C-a, generally between Corral and Boxelder Gulches (Figure 2.3-10). Only four mule deer were observed on the west census area during the four aerial censuses. Most mule deer observations on 84 Mesa north of Tract C-a during this period were recorded midway between Big Duck Creek and the northern rim of Corral Gulch. Both the 84 Mesa and Yellow Creek areas contained large numbers of mule deer relative to other areas censused during March and April. Large herds of mule deer were observed in the bottomland meadows of Yellow and Black Sulfur Creeks during the April 14 census. It is possible that the green forage in these lower areas may have attracted the animals during early spring. More mule deer were observed during the April 14 census than during any other census flight to date.

Table 2.3-3. Mule deer observed on four census areas during four census periods (March-April, 1975) for RBOSP[1/]

Date of Census		Census Area			
	Total Observed	Tract C-a	East	West	North of Tract
March 4	244	7	229	0	8
March 13	324	14	296	0	14
April 3	258	24	220	4	10
April 14	500	12	469	0	19
Totals	1,326	57	1,214	4	51

[1/]The figures represent only those animals observed within the census area boundaries.

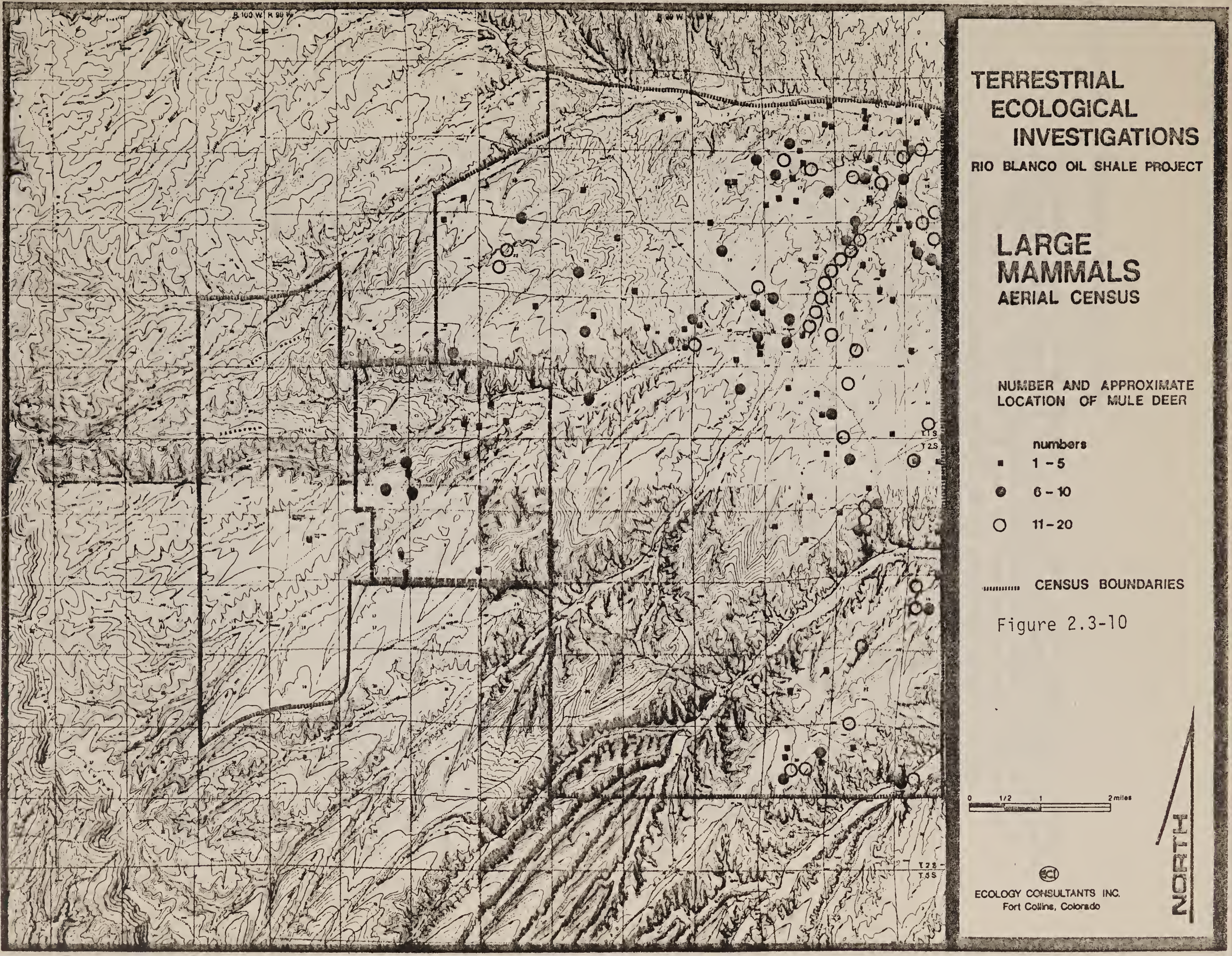
TERRESTRIAL ECOLOGICAL INVESTIGATIONS
RIO BLANCO OIL SHALE PROJECT
LARGE MAMMALS
AERIAL CENSUS
NUMBER AND APPROXIMATE LOCATION OF MULE DEER
numbers
1 - 5
6 - 10
11 - 20
CENSUS BOUNDARIES
0 1/2 1 2 miles
NORTH
ECOLOGY CONSULTANTS INC.
Fort Collins, Colorado
T 1 S
T 2 S
T 2 S
T 3 S

Figure 2.3-10

2.3.4.3.2 Mule Deer Migration Study

The number of mule deer observed during the aerial migration censuses conducted between April 13 and 26, 1975 is presented for each transect in Table 2.3-15. Aerial transect locations are shown in Figure 2.3-8. Transects 11, 12, and 13 were not censuses on April 26 due to snow showers on Cathedral Bluffs which presented unsafe flight.

Only minor movements of mule deer were recorded during the census period. Large numbers of deer were observed in the bottoms along Yellow Creek, Ryan Gulch, and Black Sulfur Creek throughout the period. The animals concentrated in the meadows to feed but appeared to bed down in the more broken, shrub-covered hillsides nearby. The area northeast of 84 Ranch on Yellow Creek was used by large numbers of deer throughout the observation period. Mule deer were also observed in Ryan Gulch throughout the study period, and more deer were observed scattered throughout areas north of Tract C-a during the last 3 days than during the previous 3 days of the migration study. Deer were not observed west of Tract C-a during the survey probably because snow still covered much of the area west of Tract C-a, particularly the north slopes, throughout the survey period. Nearly 80% of all mule deer observed during the migration survey were recorded east of Tract C-a.

2.3.4.3.2.1 Track Counts

The number of mule deer tracks crossing the dirt road surveyed east of Tract C-a (Figure 2.3-8) during April 13-23, 1975 is presented in Table 2,3-16.

Based on the data obtained from the track counts, it appears that deer were using the entire length of the road surveyed except for a small 1.5 mile portion between the bottom of Stake Springs Draw south to almost the top of the ridge between Stake Springs and Ryan Gulch. Much of the movement appeared to crisscross the road. However, all days except one had a net number of tracks favoring movement to areas west of the road toward Tract C-a. A total of 564 tracks were recorded moving generally westward while 447 were recorded moving generally eastward.

2.3.4.3.3 Mule Deer Pellet-Group Counts

Pellet group count transects on the areas selected off Tract C-a were established during May 16-19, 1975. The transects on Tract C-a (Figure 2.3-8) which were established in October, 1974 were inspected on May 20, 1975. Table 2.3-17 presents the results of the inspection of those plots located on Tract C-a.

Table 2.3-15. Number of mule deer observed by transect during migration study aerial censuses April 13-26, 1975 for RBOSP

	East of Tract					Tract C-a				West of Tract				
	Transect Number													
Date	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
April 13	125	87	40	4	50	7	8	40	0	0	0	0	0	361
April 15	45	50	19	41	10	0	22	17	17	0	0	0	0	221
April 19	35	135	86	1	49	0	8	10	0	0	0	0	0	324
April 21	57	195	177	7	4	14	33	60	0	0	0	0	0	547
April 23	13	50	8	0	3	8	34	9	30	0	0	0	0	155
April 26	35	65	39	17	11	26	39	44	0	0	NC	NC	NC 1/	276
TOTALS BY TRANSECT	310	582	369	70	127	55	144	180	47	0	0	0	0	
TOTALS BY AREA			1458					426				0		
TOTAL MULE DEER OBSERVATIONS														1884

1/ Not censused due to unfavorable weather conditions.

Table 2.3-16. Number of mule deer tracks crossing the dirt road surveyed east of Tract C-a during April 13-23, 1975 for RBOSP

Date Recorded	Individual Animal's Tracks Recorded	Direction of Movement West	Direction of Movement East	Net Number of Tracks Moving Generally Westward
April 15	56	48	8	40
April 17	106	58	48	10
April 19	280	175	105	70
April 21	287	123	164	-41
April 23	282	160	122	38
TOTAL	1011	564	447	117

Table 2.3-17. Number of pellet-groups observed on four transects on Tract C-a on May 20, 1975 for RBOSP

Transect Number	Period of Accumulation	Pellet Groups Recorded
1	209 days	4
5	211 days	14
6	208 days	11
7	209 days	7

The limited mule deer pellet group data available at this time suggest that more animals were located in the vicinity of transects 5 and 6 than near transects 1 and 7 during the accumulation period. Transects 1 and 7 are located in the western part of Tract C-a while transects 5 and 6 are in the central and eastern portions of the tract. Conclusions cannot be drawn from this limited sample size. More definitive data relative to mule deer use of certain areas based on pellet group counts will be available now that all transects covering a larger area have been established.

2.3.4.3.4 Elk and Feral Horses

The numbers of elk and feral horses observed on the two aerial surveys conducted during this quarter are presented in Table 2.3-18. The approximate locations of the elk and feral horses which were observed are presented in Figure 2.3-11.

The horses observed during this quarter were generally west and south of Tract C-a. Horses were also observed on Tract C-a during the April 1975 survey and on 84 Mesa during both surveys. Five foals born during spring, 1975 were sighted during the April 14 survey.

The six elk recorded during elk and feral horse flights were sighted northwest of Tract C-a. Another herd of approximately 12-13 animals was observed near the confluence of Dry Ryan Gulch and Ryan Gulch during the migration survey.

2.3.4.4 Summary and Conclusions

The following summary and conclusion section should be considered as preliminary interpretations which are based on limited data and which are subject to modification when more complete information is available.

2.3.4.4.1 Mule Deer Winter Aerial Surveys

The majority of the mule deer observed during this period were located in the eastern census area. Small herds were observed on Tract C-a while only 4 animals were observed on the west census area. The mule deer were concentrated in the meadows within the eastern census area during the April, 1975 survey.

2.3.4.4.2 Mule Deer Migration Study

Minor movements of mule deer were recorded during the census period. Deer appeared to concentrate in the meadows along Yellow Creek, Ryan Gulch and Black Sulfur Gulch, however, track count data indicate that animals were moving across all sections of the road used for the track count survey (Figure 2.3-8) except for the portion south of Stake Springs Draw almost to the crest of the ridge. Deer appeared to be moving generally westward across the road although there were many

Table 2.3-18. Number of elk and feral horses observed during aerial censuses conducted in March and April, 1975 for RBOSP

Date	Elk	Feral Horses		
		Adult	Foal	Unidentified
March 4	0	16	4	21
March 13	0	29	9	41
April 4	0	12	2	39
April 14	6	69	5 [1/]	0

[1/] Foals born during 1975.

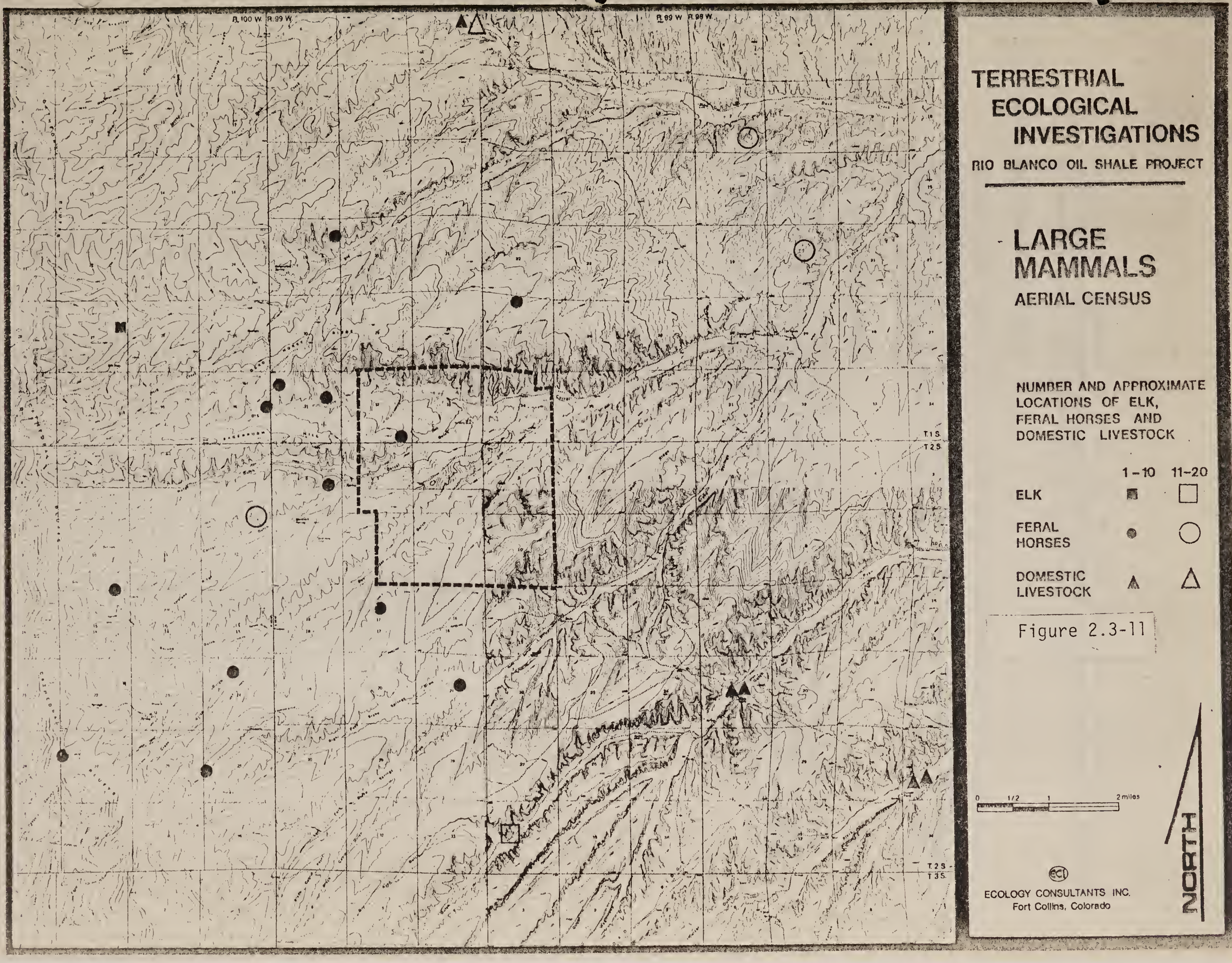
R.100 W.
R.99 W.
R.99 W.
R.98 W.
T.1 S.
T.2 S.
T.2 S.
T.3 S.
TERRESTRIAL ECOLOGICAL INVESTIGATIONS
RIO BLANCO OIL SHALE PROJECT
LARGE MAMMALS
AERIAL CENSUS
NUMBER AND APPROXIMATE LOCATIONS OF ELK, FERAL HORSES AND DOMESTIC LIVESTOCK
1-10
11-20
ELK
FERAL HORSES
DOMESTIC LIVESTOCK
0
1/2
1
2 miles
NORTH
ECI
ECOLOGY CONSULTANTS INC.
Fort Collins, Colorado

Figure 2.3-11

trails which appeared to cross and recross the road. Intermittent snow showers and green forage in the meadows may have extended a portion of the migration past the date of the final flight.

2.3.4.4.3 Pellet-Group Counts

Pellet-group count transects were established on areas off Tract C-a during May 16-19, 1975 and the transects on Tract C-a were examined for groups deposited during the winter of 1975. Very limited data suggest that the eastern portion of the tract received heavier deer use than the western portion.

2.3.4.4.4 Elk and Feral Horses

Elk and feral horse investigations revealed that a small herd of elk occupied an area west of Tract C-a while another small herd occurred south of the tract during the census period. Horses seemed to occupy areas west and south of Tract C-a as well as 84 Mesa and portions of the tract during the survey period (Figure 2.3-11).

2.3.4.5 LARGE MAMMAL RAW DATA

[illegible]

Proj/Study 83/04 Date Flown 4 March 75 Species Mule Deer Survey Area Tract C-a

Observers: Rf D VanHorn Lec C Kling Pilot/Aircraft Len Pam / Cessna 206

Start [illegible] Finish 0930 Est. ground speed & alt. 75 mph @ 150' above ground

Viewing conditions: Ground cover poor Light fair/good Air good

Weather: Temp. 20° Wind – Cloud cover high thin Analyst DVH + CCK

Observations			Location	Notes and Comments
♀	juv	U		
		3	# 2 N of Boxelder	P.J.
		1	# 3 end of transect	P.J. sage
			DVH ↓	
3			#5 N. CORRAL GULCH	P-J
1	1		#8 WOLF RIDGE	P.J.
1			#8 S. OF CORRAL Gulch	P.J.
[illegible]	1	4		

Total Animals Counted: 10

General Distribution: Scattered

RBOSP PROGRESS REPORT

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM C.6.1.3.1.1.-10

Proj/Study 83/04 Date Flown 3/13/75 Species Mule deer Survey Area Tract C-a

Observers: R C C L Kling L B D Van Horn Pilot/Aircraft Lee Penn / Cessna 206

Start 0804 Finish 0831 Est. ground speed & alt. 75 mph @ 150' above Ground

Counting conditions: Ground cover poor Light poor Air good

Weather: Temp. 21° Wind variable Cloud cover 50% Analyst DVH & CLK

Observations ♂	♀	JUV	U	Location	Notes and Comments
			8	#3 off south end of census area	sagebrush
			5	#5 near hunting club	mountainbrush
				DVH ✓	
			2	#3 400M S. CORRAL Gulch	P-J / sagebrush MIXED
			8	#3 CREST OF HILL S. BOXELDER	SAGEBRUSH
			5	#5 500M S. Corral Gulch	SAGEBRUSH
			2	#6 BETWEEN BOXELDER - Corral	P-J
			30		

Total Animals Counted: 30

General Distribution: South of Boxelder, South of Corral Gulch

RBOSP PROGRESS REPORT

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

C.6.1.3.1.1.-11

roj/Study 83104 Date Flown 4/3/75 Species Muledeer Survey Area Tract C-a

bservers: RF DVanHorn Lee C King Pilot/Aircraft Lea Pau / Cessna 206

tart 0745 Finish 0818 Est. ground speed & alt. 75 mph @ 150' above grnd

ounting conditions: Ground cover Excellent Light Excellent Air Excellent

eather: Temp. 20 Wind — Cloud cover NONE Analyst DVH & CLK

Observations			Location	Notes and Comments
♀	juv	U		
		7	#3 between Boxelder + Corral Gulchs	bedded in Pinyon Juniper
		3	#3 North of Boxelder	bedded in Pinyon-Juniper
		1?	#6 Top of ridge at start	bedded in Pinyon Juniper
		8	#3 South slope Corral gul.	P.J.
		~~8~~	~~#5 North of Cor.~~ put on North slope of Corral ~~Ck~~	~~P.J. one w/ F&G. Neck Collar, white~~
		5	#6 Bottom Corral Gulch	Sage
		24		

tal Animals Counted: 24

imal Distribution: mostly on ridge between Corral and Boxelder scattered groups.

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM 83.C.6.7.3.1.1-18

roj/Study 83/04 Date Flown 4/14/75 Species Mule deer Survey Area Tract C-a

bservers: RF CL Kling LR D VanHorn Pilot/Aircraft Len Pour / Cessna 206

tart [illegible] Finish 0755 Est. ground speed & alt. 75 mph @ 150' above ground

ou[illegible]ng conditions: Ground cover poor Light poor Air good Fair

eather: Temp. 37 Wind — Cloud cover high Analyst CLKling

servations			Location	Notes and Comments
♀	JUV	U		
		4	Transect 3 North of Corral Gulch	sage habitat
		2	3 [illegible] of Boxelder	sage, Northern exposure
		(8)	2 [illegible] corner, off census area	Sage P.J.
		6	2 Ridge top South of Corral Gulch	P.J.
		(3)	4 off census area to South	sage
		23		

tal Animals Counted: 23

imal Distribution: small groups on ridge top.

[illegible]

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM C.6.1.3.1.2.-8

roj/Study 83/4d Date Flown 4 March 75 Species Mule Deer Survey Area West Census Area

bservers: RF D VanHorn LR C Kling Pilot/Aircraft Lea Perry / Cessna 206

art 1117 Finish 1145 Est. ground speed & alt. 75 mph @ 150' above ground.

urveying conditions: Ground cover good/fair Light good Air good

eather: Temp. 30-40 Wind ______ Cloud cover High Thin Analyst DVH and CLK

bservations				Location	Notes and Comments
	♀	JUV	U		
				no animals observed by CLK this date	
				" " " " DVH this date	

al Animals Counted: 0

nal Distribution:

RBCSP PROGRESS REPORT

JB

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM C.6.1.3.1.2-9

roj/Study 5?/04 Date Flown 13 March '75 Species Mule Deer Survey Area West Census Area

bservers: RF CL King LR D Vonlbun Pilot/Aircraft Les Pace / Cessna 206

tart 0856 Finish 0916 Est. ground speed & alt. 75 mph @ 150' above ground

o[illegible]ing conditions: Ground cover fair/poor Light good Air Fair

eather: Temp. 20° Wind variable SW Cloud cover None Analyst DVH + CLK

bservations				Location	Notes and Comments
♂	♀	JUV	U		
				No deer spotted by CLK + his data	
				NO DEER OBSERVED /	DVH

otal Animals Counted: 0

nimal Distribution: ___

RLOSP PROGRESS REPORT

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

C.O.1.3.1.2 -10

roj/Study 83/04 Date Flown 4/3/75 Species Muledeer Survey Area West Corral Gulch

bservers: R.D. VanHorn L.R. C.L.Kling Pilot/Aircraft Len Pace / Cessna 206

tart 0909 Finish 1007 Est. ground speed & alt. 75 mph & 150' above ground

...ing conditions: Ground cover Excellent Light Excellent Air Excellent

eather: Temp. 30° Wind — Cloud cover NONE Analyst DVH and CLK

bservations				Location	Notes and Comments
	♀	JUV	U		
				No muledeer observed by C Kling & his data.	
				DVH ↓	
			4	T4 S. Corral Gulch	P.J.
			4		

tal Animals Counted: 4

imal Distribution: 1 group

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM 8.3.C.6.1.2.1.2

Proj/Study 83/04 Date Flown 4/14/75 Species Mule deer Survey Area West Census Area

Observers: RF CL Kling L R D Van Horn Pilot/Aircraft Len Parr / Cessna 206

Start ~1000 Finish 1038 Est. ground speed & alt. 75-80 mph @ 150' above ground

Counting conditions: Ground cover poor Light poor Air fair

Weather: Temp. 34° Wind — Cloud cover high heavy Analyst CL Kling

Observations				Location	Notes and Comments
♂	♀	JUV	U		
				No animals observed during census of this area	
		Ø			

Total Animals Counted: Ø

Animal Distribution: —

DFOSP PROGRESS REPORT

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM C.6.1.3.1.3-8

oj/Study 83/04 Date Flown 4 March '75 Species Mule Deer Survey Area East Census Area

servers: R. E. D. Walton L. C. Kling Pilot/Aircraft Lee Penn / Cessna 206

art 0932 Finish 1157 Est. ground speed & alt. 75 mph @ 150' above ground

u..ng conditions: Ground cover poor Light Fair/good Air good

ather: Temp. 30° Wind — Cloud cover high thin Analyst DWH and CLK

servations				Location	Notes and Comments
	♀	JUV	U		
			13	#1 breaks area south of Yellow Creek	P.J. sage
			15	#1 " " " " " "	" " "
			4	#1 before Ryan Gulch	P.J.
			1	#3 84 mesa gully	
			18	#3 84 mesa S of gully	P.J. sage
			4	#3 small drainage S of Yellow Creek	P.J. Sage
			9	#4 ridge N of Black Sulfur	Sage
			1	#4 south of Ryan Gulch	Sage
			9	#4 near road between Ryan and 84 ranch	Sage
			16	#4 ~½ mi south of Yellow Creek	P.J. sage
1				#4 South of Duck Creek	sage
			1	#4 in Duck Creek	bottom of creek
			3	#5 South of Duck Creek beginning of pass	sage
			15	#5 road at Yellow Creek E of 84 ranch	road; meadow
			1	#5 gully S of road from Ryan to 84 ranch	—
			2	#6 S of (Yellow Creek) Corral Gulch	
			(7)	#6 bottom of (Yellow Creek) Corral Gulch	bottom; meadow
			25	#6 N of Yellow Creek 84 mesa	sagebrush
			2	#8 84 mesa south part	P.J. type edge of sage
			5	#8 84 mesa near end of transect	sagebrush
			(4)	#9 Off census area as we turn corner	north of Duck Creek
			2	#11 84 mesa after Duck Creek	
			3	#11 84 mesa before Corral Gulch	P.J. type
			7	#1 N. DUCK CREEK	SAGE
			1	#1 S. DUCK CREEK	SAGE
			2	#1 S. YELLOW CREEK	SAGE

al Animals Counted:

mal Distribution:

RBOSP PROGRESS REPORT

7
8
4
1
/26

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

Proj/Study 83-04 Date Flown 3-4-75 Species Mule Dr. Survey Area East Census Area

Observers: R ________ L ________ Pilot/Aircraft ________

Start ________ Finish ________ Est. ground speed & alt. ________

Counting conditions: Ground cover ________ Light ________ Air ________

Weather: Temp. ________ Wind ________ Cloud cover ________ Analyst ________

Observations ♂	♀	JUV	U	Location	Notes and Comments
			22	#1 600m S. Ryan Gulch	P.J.
			(8)	#2 S. Blk Sulfur	P.J.
			1	#2 S. Yellow Ck	SAGE
			2	#3 S. Duck Ck	SAGE
			10	#3 Sec 4 T2S R98W	SAGE
			12	#4 Yellow Ck. Bottom	SAGE
1				#5 S. Stake Spgs. Draw	P.J.
			3	#5 1/2 way be/ Ryan & Bk. Sul.	SAGEBRUSH
			7	#6 N. Corral Gulch	SAGE
			2	#7 84 Mesa	P.J./SAGE
	1	2		#7 Sec. 18. N. Ryan Gul.	P.J.
			1	#8 N. Corral Gulch	P.J.
1				#9 N. Duck Ck.	SAGE/P.J.
1			5	#11 N. Gulley A. 84 mesa	SAGE/P.J.
3		2	243		

Total Animals Counted: 249

Animal Distribution: NE 1/4 of area

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

C.6.1.3.1.3-9

Proj/Study 83/04 Date Flown 3/13/75 Species Mule Deer Survey Area East Census Area

Observers: R.F. C.L.Kling L.R. Dennis VanHorn Pilot/Aircraft Len Penn /Cessna 206

Start 0912/0938 Finish 1046 Est. ground speed & alt. 75 mph @ 150' above ground

Counting conditions: Ground cover poor Light poor/fair Air good

Weather: Temp. 20/48° Wind variable from SW Cloud cover 75% bkn. Analyst DVH & CLK

Observations ♂	♀	JUV	U	Location	Notes and Comments
			14	#1 South of Ryan Gulch	P.J.
					snowing on south end of census area - we
					ran west census area then returned at 1015
					to finish census on east census area.
			33	#2 N of Ryan Gulch, south of road	sagebrush
			3	#2 S of Yellow Creek	P.J.
			4	#3 N of Yellow Creek	scattered sage or bare
			16	#3 S of Yellow Creek	Sage
			11	#3 road N of Black Sulfur	Sage - P.J.
			20	#4 SW of road from Ryan to 84 ranch	Sage
			29	#4 road on yellow Creek & North	meadow + sage
			10	#5 } near beginning of transect	sage
			14	#5 } circled to count them	sage
			6	#5 }	P.J.
			5	#5 }	sage
			11	#5 between Corral + Stake Springs	sage and P.J.
			5	#5 N of road above Black Sulfur	sage
			1	#6 1/2 way between Ryan + Stake Springs	P.J.
				DVH ↓	
			3	HEAD of South VanHorn Gulley. #1	SAGE
			11	#1 S. of Ryan Gulch	P-J/SAGE
			9	#1 S. of Ryan Gulch	P-J/SAGE
			8	#2 BEFORE Yellow Creek	P-J
			3	#3 Before (N) Yellow Creek	SAGE
			22	#3 South side of N. VanHorn Gulley	SAGE / sparse P-J
			4	#3 North of RYAN GULCH	P-J
			2	#3 North of BLACK Sulfur	SAGE / P-J

Total Animals Counted: 276

Animal Distribution: Eastern 1/2 had most animals

RBOSP PROGRESS REPORT

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

Proj/Study 83/04 Date Flown 3-13-75 Species ________ Survey Area East Census Area

Observers: R ________ L ________ Pilot/Aircraft ________

Start ________ Finish ________ Est. ground speed & alt. ________

Counting conditions: Ground cover ________ Light ________ Air ________

Weather: Temp. ________ Wind ________ Cloud cover ________ Analyst ________

Observations ♂	♀	JUV	U	Location	Notes and Comments
			3	Bottom Black Sulfur #3	Sagebrush
			5	#4 Hunk Ridge - Sec 5 T2S R98W	Sage
			25	#4 Head of N. Van Horn Gulley	Sage
			5	} 1/2 way Between Duck	
			3	(5) Creek and Corral	Sage
			2	#7 S. of Corral Gulch	P-J
			9	#8 N. of Corral Gulch	Sage / P-J
			296		

Total Animals Counted: 296

Animal Distribution:

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM C.6.1.3.1.3-10

Proj/Study 83/04 Date Flown 4/9/75 Species Mule deer Survey Area East Census Area

Observers: R&D VanHorn L R C Kling Pilot/Aircraft Len Parr / Cessna 206

Start 0822 Finish 0946 Est. ground speed & alt. 75 mph @ 150' above ground

Counting conditions: Ground cover Excellent Light Excellent Air Excellent

Weather: Temp. 20-30° Wind ____ Cloud cover NONE Analyst DVH and CLK

♂	♀	JUV	U	Location	Notes and Comments
			5	#1 South of Yellow Creek	sage - P.J.
			2	#2 South of Yellow Creek	sage - P.J.
			5	#2 South of Yellow Creek	sage ridge
					many tracks on East part of 84 mesa
			5	#2 at end of transect S of Duck Creek	P.J.
			2	#3 south of Yellow Creek	P.J.
			6	#3 west of Road from Ryan Gulch	P.J.
			2	#4 very end of transect.	P.J.
			5	#5 North of Yellow Creek	P.J.
			4	#5 South of Yellow Creek	breaks area
			8	#5 North of Ryan Gulch	sage P.J.
			2	#5 North of Ryan Gulch	P.J. type
			15	#5 North of Black Sulfur	P.J.
			4	#6 84 mesa 1/3 mi N of Corral	sage P.J.
			6	#6 North of Gulley on 84 Mesa	P.J.
			5	#7 North of Gully	sagebrush
			2	#7 bottom of Stake Springs	bottomland sage
			1	#7 South of Stake Springs	sage
			2	#8 North of Ryan Gulch	P.J.
			1	#9 North of Corral Gulch	P.J.
			2	#11 North of Duck Creek	mnt brush
			1	#11 84 mesa 1 mi from Corral Gulch	P.J
				DVA ↓	
			9	#1 south of Yellow Ck.	P.J.
			5	T1 S. of Ryan	P.J.
			3	T2 HEAD of V.H. Gulley	PJ
			7	T2 S. of Yellow Ck	PJ
				PAGE 1 OF 2	

Total Animals Counted:

Animal Distribution:

RBOSP PROGRESS REPORT

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

Proj/Study 83/04 Date Flown 4/3/75 Species Mule deer Survey Area East Survey area

Observers: R ____ L ____ Pilot/Aircraft ____

Start ____ Finish ____ Est. ground speed & alt. ____

Counting conditions: Ground cover ____ Light ____ Air ____

Weather: Temp. ____ Wind ____ Cloud cover ____ Analyst ____

Observations ♂	♀	JUV	U	Location	Notes and Comments
			26	#2 Van Horn Gulley, N. of Yellow Ck	sage. in one group
			3	#3 South of Duck Ck.	Sage
			29	#3 South of VH. Gulley	Sage
			5	#3 South Yellow Ck	P.J.
			5	#4 84 mesa	sagebrush
			2	#5 84 mesa	sagebrush
			1	#5 84 mesa	sagebrush
			3	#5 1/2 between Ryan & Black Sul.	sage - P.J.
			4	T6 South of head of Van Horn gulley	sage
			26	T8 Corral gulch bottom	sage - greasewood
			3	T9 S. Duck Ck	sage
			4	T11 S. Big Duck Ck	sage - P.J.
			7	T11 Corral gulch bottom	sage - bottom brush
				end.	
			222	PAGE 2 OF 2	

Total Animals Counted: 222

Animal Distribution: Large portion on 84 mesa + yellow Creek drainage

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

B.C.6.1.3.1.2-11

Proj/Study 83/04 Date Flown 4/14/75 Species Mule deer Survey Area East of Tract Ca

Observers: R F Ckling L E D Van Horn Pilot/Aircraft Len Pow / Cessna 206

Start 0758 Finish 0924 Est. ground speed & alt. 75-80 mph @ 150' above ground.

Counting conditions: Ground cover poor Light poor Air fair

Weather: Temp. 37° Wind — Cloud cover high heavy Analyst Ckling

Observations ♂	♀	JUV	U	Location	Notes and Comments
				Transect	
			6	#1 bottom south of yellow creek	
			15	#1 meadow South of Yellow Creek	2 had light, Faded collars.
			14	#1 North of road above Ryan Gulch	sage P-J. habitat
			2	#2 North of Ryan Gulch	along road
			2	#3 84 mesa near Duck Creek	Sage
			4	#3 84 mesa V.H Gulley	bottom of Gulley
			10	#3 North of Yellow Creek	ridge - P.J.
			3	#3 Yellow Creek bottom	in meadow
			3	#3 North of Road above Ryan	road area P.J.
			56	#3 South of Road above Ryan Gulch	sage P.J.
			9	#3 Near pipeline	P.J. sage mixture
			2	#3 South of Pipeline	P.J. sage mixture
			3	#3 South of Pipeline	P.J. sage
			4	#3 South of Pipeline North of Ryan	P.J. Sage
			31	#3 Gullys on Wagon Road Ridge	Sage
			3	#3 road (?) above Black Sulfur	on road
			(10)	#3 corner off census area to south	
			4	#4 on Pipeline road	on road.
			12	#4 East of road from Ryan Gulch	Sage
			10	#5 84 mesa N of V.H. Gulley	Sage P.J. mixture
			4	#5 bottom of V.H. Gulley	
			2	#5 east of road from 84 ranch	
			5	#5 on Wagon Road Ridge	
			26	#5 above Wagon Road Ridge	
			4	#5 North of Wagon Road Ridge road	
			10	#7 east of 84 ranch road	Sage.
			3	#8 headwaters of V.H Gulley	Sage.

Total Animals Counted:

Animal Distribution:

RBOSP PROGRESS REPORT
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BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

Proj/Study 83/01 Date Flown 4/14/75 Species Mule deer Survey Area East of Tract C-a

Observers: R __________ L __________ Pilot/Aircraft __________

Start __________ Finish __________ Est. ground speed & alt. __________

Counting conditions: Ground cover __________ Light __________ Air fair

Weather: Temp. __________ Wind __________ Cloud cover __________ Analyst __________

Observations ♂	♀	JUV	U	Location	Notes and Comments
				transect	
			3	9 1 mi North of Corral Gulch	P.J. sage
			4	10 South part of 84 mesa	
			3	#1 North of Ryan ridgetop	P.J
					east of closure area Bottom of Ryan 75-100 deer
			29	#2 bottom of Black Sulfur	feeding in pasture
			5	#2 North of enclosure	Sage
			12	#2 bottom of Yellow Creek	
			3	#3 south of 84 mesa	P.J.
			3	#4 below met tower	P.J.
			87	#4 Bottom of Yellow Creek	
			12	#4 84 mesa S of VanHorn Gulley	Sage
			3	#4 84 mesa N of VanHorn Gulley	
			7	#5 North of Yellow Creek	P.J.
			21	#5 Yellow Creek bottom	meadow
			1	#6 bottom of Corral Gulch	
			8	#7 North of Corral Gulch	Sage
			9	#7 between Snake Springs & Corral	Ridgetop P.J.
			3	#9 North of Corral Gulch	P.J.
			6	#10 84 mesa	sage
			4	#11 B Gulley 84 mesa	P.J. sage
			11	#11 North of Corral Gulch	P-J Sage
			479		

Total Animals Counted: 479

Animal Distribution: Large herds, mostly in bottoms eastern 1/2 of area, more scattered as they are observed in west part of the area.

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM 83 C.6.1.3.1.4-2

Proj/Study *Proj 83/04* Date Flown *11/08/78* Species *Mule Deer* Survey Area *Stake Springs Corral Gulch*

Observers: R *CLK* L *DVH* Pilot/Aircraft *Les Faus / Cessna 182 Skylane*

Start *0944* Finish *1001* Est. ground speed & alt. *75-80 mph - @200 ft above ground*

Spotting conditions: Ground cover *poor* Light *good* Air *Fair*

Weather: Temp. *34/40°F* Wind *calm* Cloud cover *0-80%* Analyst *CLK*

Observations				Location	Notes and Comments
♂	♀	JUV	U		

Total Animals Counted:

Animal Distribution:

No animals sighted this date.

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

roj/Study 83104 Date Flown 2/12/75 Species Mule Deer Survey Area 84 Mesa Northof C-a

bservers: R CHKling L D Van Horn Pilot/Aircraft Lee Penn / Cessna 206

tart 0902 Finish 0939 Est. ground speed & alt. 150' @75 mph.

ounting conditions: Ground cover Poor Light Fair Air Good

eather: Temp. 29/39 Wind 5-6 W Cloud cover 95-100% Analyst DVH & CLK

bservations				Location	Notes and Comments
	♀	JUV	U		
				No animals spotted by CLK right observer.	
				DVH ⇩	
			10	T.7 SE1/4 Sec 22 T1S R99W.	south facing slope, P.J.
			4	T.8 Before Duck Creek	P.J.
			14		

otal Animals Counted: 14

nimal Distribution: grouped on south facing slope

GROSP PROGRESS REPORT

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM C.L 1.3.1.4-4

roj/Study 83/04 Date Flown 4 March 75 Species Mule deer Survey Area North of Tract C-a

bservers: R D Van Horn L C Kling Pilot/Aircraft Les Price / Cessna 206

tart 0857 Finish 0930 Est. ground speed & alt. 75 mph @ 150' above ground

ur...ng conditions: Ground cover poor Light fair/good Air good

eather: Temp. 30° Wind — Cloud cover high Thin Analyst DVH + CLK

servations				Location	Notes and Comments
	♀	JUV	U		
			2	#8 N of second gully N of Corral Gulch	P.J.
			6	#7 N. of Gulley A, sec. 22 →	many tracks relative to Tract C-a P.J.
			8		

cal Animals Counted: 8

imal Distribution: in P.J.

RBOSP PROGRESS REPORT

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM C.6.1.3.1.4 - 5

roj/Study 83/04 Date Flown 8/13/75 Species Mule Deer Survey Area North of Tract C-a

bservers: R C L Kling L R D VanHorn Pilot/Aircraft Len Pau / Cessna 206

tart 0800 Finish 0839 Est. ground speed & alt. 75 mph @ 150' above Ground

ou[illegible]ng conditions: Ground cover poor Light poor Air good

eather: Temp. 21° Wind variable Cloud cover variable 50% Analyst DVH + CLK

bservations				Location	Notes and Comments
	♀	JUV	U		
			14	84 mesa 1/2 way between Duck + Corral; #7	P.J.
				DVH NO DEER OBSERVED	
			14		

tal Animals Counted: 14

imal Distribution: 1 herd in Pinyon juniper type

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

C.6.1.3.1.4. - 6

roj/Study 83/104 Date Flown 4/3/75 Species Mule deer Survey Area North of Tract C-a

bservers: RF P VanHorn L R C Kling Pilot/Aircraft Len Pam / Cessna 206

tart [illegible] Finish 0818 Est. ground speed & alt. 75 mph @ 150' above ground

ou[illegible]ng conditions: Ground cover Excellent Light Excellent Air Excellent

eather: Temp. 20 Wind — Cloud cover NONE Analyst DVH & CLK

bservations				Location	Notes and Comments
♂	♀	JUV	U		
			2	#5 South of Big Duck Creek	Pinyon - Juniper and bedded
				~~[illegible] No DEER~~	
			8	#5 North of C-a (from Tract C-a data sheet)	P.J. one w/ F+G Neck Collar, white
			10		

tal Animals Counted: 10

imal Distribution: in two groups scattered in P-J

RBOSP PROGRESS REPORT

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM 83.C.6.1.3.1.4

Proj/Study 83/04 Date Flown 4/14/75 Species Mule deer Survey Area North of Tract C-a

Observers: R R C Kling L R D VanHorn Pilot/Aircraft Len Pam / Cessna 206

Start 0722 Finish 0755 Est. ground speed & alt. 75-80 mph @ 150' above ground

Counting conditions: Ground cover poor Light poor Air good/Fair

Weather: Temp. 37° Wind — Cloud cover high - 90% Analyst C C Kling

Observations ♂	♀	JUV	U	Location	Notes and Comments
			17	transect 6 halfway between Big Duck T Corral	sage type
			2	transect 7 North of Mouth of Boxelder	P.J.
			19		

Total Animals Counted: 19

Animal Distribution: most in one group.

RBOSP PROGRESS REPORT

83 C.6.3.3.1-1 BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM *Migration Count*

roj/Study *83/04* Date Flown *13 April 1978* Species *Muledeer* Survey Area *Rio Blanco Study Area*

bservers: RF *CR Kling* LF *Len Paur* Pilot/Aircraft *Len Paur / Cessna 206*

tart *0750* Finish *0958* Est. ground speed & alt. *80 mph @ 150'*

ou[nti]ng conditions: Ground cover *poor* Light *good* Air *good*

eather: Temp. *30/36° F* Wind *NE @ 5 mph* Cloud cover *NONE* Analyst *CRK*

bservations				Location	Notes and Comments
	♀	JUV	U		
			31	#8 between Boxelder + Corral Gulches	P.J.
			9	#8 North head of transect	
			4	#7 past Boxelder	P.J.
			4	#7 near Pipeline	P.J.
			7	#6 N side of Corral Gulch	
			42	#5 N½ of 84 mesa near road	
			8	#5 1 mi south of start	
			4	#4 North of Corral Gulch	
			12	#3 300 yds SW of 84 ranch	meadow
			22	#3 N of Van Horn Gulley	sagebrush
			6	#3 east of road up from 84 ranch	
			2	#2 N of road from Ryan School	sage
			6	#2 South of yellow Creek	P.J.
			9	#2 yellow Creek bottom	meadow
			4	#2 near comet tower	meadow
			11	#2 South of Van Horn Gulley	Sage still grazing at 0930
			14	#2 East of 84 Ranch	
			37	#2 East of 84 Ranch	
			6	#2 Road NE of 84 Ranch	
			47	#1 East of Ryan School	
			8	#1 Black Sulfur Gulch.	
			9	#1 South of Yellow Creek	
			12	#1 } North of road on ridge above	P.J.
			14	#1 } Ryan Gulch	
			37	#1 }	
			361		

tal Animals Counted: *361*

imal Distribution: *Most in eastern part of study area*

RBOSP PROGRESS REPORT

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3.C.6.3.3.1-2

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM Migration Count

Proj/Study 83/04 Date Flown 15 April, 1975 Species Mule deer Survey Area Rio Blanco Study Area

Observers: RF CL Kling LF Len Paur Pilot/Aircraft Len Paur / Cessna 206

Start 0721 Finish 0910 Est. ground speed & alt. 80 mph @ 150' above ground

Counting conditions: Ground cover poor Light poor Air fair

Weather: Temp. 39°/49° Wind SE 10-15 mph Cloud cover light heavy variable Analyst CL Kling

Observations ♂	♀	JUV	U	Location	Notes and Comments
			5	#9 North of Corral Gulch	
			12	#9 ridge North of Airplane Ridge	
			17	#8 trail N of Corral Gulch	Sagebrush
			22	#7 powerline North of Pipeline	
			10	#5 Near road North of Corral	PJ-sagebrush
			33	#4 } North of Corral Gulch	
			8	#4 } West of road on 84 mesa	
			5	#3 South of Corral Gulch	
			7	#3 almost on Stake Springs	
			4	#3 Pipeline N of Ryan Gulch	P-J.
			3	#3 84 Mesa N of Pipeline	
			9	#2 North of tower at south end	
			7	#2 east of 84 ranch	
			9	#2 1/4 mi NE of 84 ranch	
			5	#2 North of R bench	
			20	#2 Yellow Creek bottoms	
			18	#1 Ryan Gulch east of Ryan School	
			4	#1 South of Yellow Creek	
			18	#1 North of Ryan Gulch	
			5	#1 North of Black Sulfur	
			221		

Total Animals Counted: 221

Animal Distribution: Most in eastern part of area.

PROGRESS REPORT

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3.C.6.3.3.1-3 BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM Migration Corral

roj/Study 83/04 Date Flown 19 April 1975 Species Mule deer Survey Area Rio Blanco Study Area

bservers: RF CL Kling LF Len Paur Pilot/Aircraft Len Paur / Cessna 206

tart 0742 Finish 0929 Est. ground speed & alt. 80 mph @ 150' above ground.

ou ing conditions: Ground cover fair/poor/ snowed yesterday Light good/fair Air good

eather: Temp. 28°/38°F Wind SE 5-10 mph Cloud cover few/scattered Analyst clkling

bservations				Location	Notes and Comments
♂	♀	JUV	U		
			10	#8 Hunting Club Ridge	
			4	#7 North of Piney Gulch	
			4	#7 North of Corral Gulch	
			22	#5 SW Corner Sec 13 T1S R99W	
			2	#5 " " " 24 " " "	
			4	#5 " " " 12 T2S R99W	
			21	#5 North of Corral Gulch	
			1	#4 Sec 1 T2S R99W	
			8	#3 NE of lower benchmark 84 ranch	
			6	#3 bottom of Corral Gulch	
			10	#3 above Stake Springs	
			4	#3 along pipeline	
			43	#3 bottom of Ryan Gulch	
			8	#3 Wagon Road Ridge near road	
			7	#3 South of 84 Ranch	
			25	#2 Bottom of Yellow Creek NE of 84 ranch	
			67	#2 " " " " " " "	
			10	#2 meadow in Ryan Gulch	
			6	#2 along pipeline	
			23	#2 Yellow Creek	
			35	#1 bottom of Black Sulfur	
			324		

tal Animals Counted: 324

imal Distribution: Most deer in bottoms of meadows - Yellow Creek
Ryan
Black Sulfur.

RBOSP PROGRESS REPORT

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83.C.6.3.3.1-4 BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM Migration Count

Proj/Study 83/04 Date Flown 21 April 1975 Species Mule Deer Survey Area Rio Blanco Study Area

Observers: RF CLKling LP Len Pace Pilot/Aircraft Len Pace /Cessna 206

Start 0724 Finish 0920 Est. ground speed & alt. 80 mph @ 150' above ground

Counting conditions: Ground cover poor Light good/Fair Air excellent

Weather: Temp. 37°/40 Wind SSE @ 10-15 mph Cloud cover hazy Analyst CLKling

Observations ♂	♀	JUV	U	Location	Notes and Comments
			1	#8 after Corral Gulch	sagebrush
			12	#8 84 mesa N of B.D. Creek	
			5	#8 3/4 mi SW of Met Station	
			23	#8 100 yds SW Met Station	
			4	#8 Airplane Ridge	
			3	#8 N. of Big Duck Creek	
			9	#8 1 Mi N. of Big Duck Creek	
			3	#8 W of N end of transect	
			10	#7 Section 22 84 mesa	
			23	#7 84 mesa between A+B Gully	
			4	#6 N. of road on 84 mesa, S of truck count road	
			3	#6 Stake Springs	
			7	#6 Sect 27 west of transect.	
			4	#5 on Hunk Ridge	
			2	#4 Ridge N of Stake Springs	
			5	#4 W of N end of transect	
			39	#3 meadow of Corral Gulch	moving across field harassed by farmer
			32	#3 bottom of Ryan Gulch	
			32	#3 up from Kargle Ranch	
			74	#3 Top of Wagon Road Ridge	- near cross roads
			36	#2 Ryan Gulch meadow	
			157	#2 Yellow Creek Area	
			2	#2 Sect 5 west of transect line	
			45	#1 bottom of Yellow Creek	
			4	#1 N of Ryan Gulch road	Sage
			2	#1 South of road & pipeline	
			6	#1 E of S end of Transect.	
			547		

Total Animals Counted: 547

Animal Distribution: Large numbers in meadows of Yellow Creek.

RBOSP PROGRESS REPORT

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3.C 6.3.3.1 -5 BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM Migration Count

roj/Study 83/04 Date Flown 23 April 1985 Species Mule deer Survey Area Rio Blanco Study Area

bservers: RF C.L. Kling LF Lee Penn Pilot/Aircraft Lee Penn / Cessna 206

tart 0808 Finish 0947 Est. ground speed & alt. 80 mph @ 150' above ground level

our ng conditions: Ground cover poor Light Fair Air Fair

eather: Temp. 40° Wind SW @ 10 mph Cloud cover High / heavy Analyst C.L. Kling

bservations				Location	Notes and Comments
♂	♀	JUV	U		
			22	#9 Airplane ridge	
			8	#9 N of Boxelder	
			6	#8 pipeline area	
			3	#8 Live Eagle Gully Bottom	
			8	#7 bottom of "A" Gulley	
			26	#7 between "A" and "B" Gulley	P.J.
			8	#6 Stake Springs Bottom	
			3	#5 84 mesa S of "B" Gulley	
			8	#3 across Corral Gulch Ridge	
			3	#2 Ryan Gulch meadow sagebrush	
			7	#2 South of Pipeline on Hack Ridge	
			2	#2 road on Yellow Creek	
			38	#2 bottom of Yellow Creek	
			11	#1 bottom of Yellow Creek	
			2	#1 1.1 mi S of Yellow Creek	
			155		

tal Animals Counted: 155

imal Distribution: smaller herds farther west than before

RBOSP PROGRESS REPORT

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83.C.6.3.3.1-6 BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM Migration Count

1 of 2

roj/Study 83/04 Date Flown 26 April 1985 Species Mule Deer Survey Area Rio Blanco Study Area

bservers: Rf CL Kling LF Len Pour Pilot/Aircraft Len Pour / Cessna 206

tart 0726 Finish 0847 Est. ground speed & alt. 150' above ground @ 80 mph

ou[..]ng conditions: Ground cover poor Light fair/poor Air good

eather: Temp. 26° Wind ESE @ 5 mph Cloud cover [illegible] Analyst CL Kling

bservations				Location	Notes and Comments
♂	♀	JUV	U		
					snowing on Top 3 Transects so unable to Fly 11, 12, and 13
			5	#8 S of Corral Gulch ridge	
			33	#8 Big Duck Creek + Live Eagle Gulley	
			16	#8 ridge between Lee's gulley + Little Duck Creek	
			5	#7 Just off start	
			5	#7 on "A" gully	
			6	#7 "A" gully	
			21	#7 above Boxelder	
			2	#7 left near end	
			8	#6 on line past First ridge.	
			18	#6 bottom of Corral Gulch	
			11	#5 off curve in 84 mesa road	
			5	#4 South end of transect	
			7	#4 past Corral Gulch	
			5	#4 Top of Ridge sage left side	
			3	#3 between road + pipeline 84 mesa	
			6	#3 Corral Gulch Meadow	
			9	#3 Wolf ridge	
			8	#3 Ryan Gulch	
			13	#3 Ryan Gulch east of Ray G. Ranch	
			2	#2 Road by met tower	
			18	#2 Bottom of Ryan Gulch	
			1	#2 South of Yellow Creek	
			32	#2 Yellow Creek Bottoms	
			12	#2 Yellow Creek Bottom	
			5	#1 N of yellow Creek left	

tal Animals Counted: 276

imal Distribution: herds of 10-20 scattered throughout the area, still using Yellow Creek.

RBOSP PROGRESS REPORT

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BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM, Migration Count

roj/Study [illegible] Date Flown [illegible] 1975 Species Mule Deer Survey Area [illegible] 276

bservers: R________ L________ Pilot/Aircraft________

tart________ Finish________ Est. ground speed & alt.________

bs...ng conditions: Ground cover________ Light________ Air________

eather: Temp.________ Wind________ Cloud cover________ Analyst [illegible]

bservations				Location	Notes and Comments
	♀	YR	U		
			5	#1 N of Yellow Creek ridge	
			30	#1 [illegible] of Yellow Creek	
			5	#1 Sage just [illegible]	

otal Animals Counted: 276

nimal Distribution:

RBOSP PROGRESS REPORT

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET

Project: 83 Transect: 1 Plot Size: 100 ft²

Location: E½ S32 T1S R99W

Date Pellet Groups Initially Removed: 10/28/74 Survey No: 1 Spring 1975

Plot No.	Inspector: A Ollgblatt, CL Kling Date: 05/19/75 Pellet Groups Observed	Landscape and Vegetation Information	slope	aspect	
1	1	Artr Amut Chry	5°	110°	
2	0	Artr Juos Amut	28°	110°	under dead [illegible]
3	0	Pied-grasses	31	180	under [illegible]
4	0	Amut Juos Pied	30	90	under amut and [illegible]
5	0	Cemo Pied Artr	16	120	by dead Juos
6	0	Cemo Pied Juos	16	200	
7	1	Cemo Amut Pied	10°	130	
8	0	Chry Amut Atri	39	170	
9	0	Artr	10	140	
10	0	Artr	12	180	
11	0	Artr Symp	6	360	[illegible] Artr
12	0	Amut Cemo	17°	10°	
13	0	Amut Symp	8	40	under big Amut
14	1	Amut Artr Chry	6	350	
15	0	Amut Symp Artr	4	90	
16	0	Cemo	3	350	
17	1	Amut Artr Cemo	10	180	[illegible]
18	0	Amut Symp	23°	100	
19	0	Amut Artr Symp	50° Tower	360	[illegible]
20	0	Amut Artr Symp	10°	340	[illegible]
21	0	Amut Artr Symp	10°	360	" "
22	0	Artr Symp	8°	360	[illegible]
23	0	Artr Amut Symp	7	10	under Amut
24	0	Artr Symp	14	10	
25	0	Artr Juos Cemo	3	110	[illegible] Juos
Total	4				

Artr = Artemisia tridentata
Amut = Amelanchier utahensis
Chry = Chrysothamnus spp.
Pied = Pinus edulis
Cemo = Cercocarpus montanus
Atri = Atriplex spp.
[illegible] = Symphoricarpos spp.

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET

Project: 83 Transect: #2 Plot Size: 100 ft²

Location: W½ S24 T1S R100W

Date Pellet Groups Initially Removed: 05/19/75 Survey No: Initial

Plot No.	Inspector: GDUphoff, CLKling. Date: 05/19/75 Pellet Groups Observed	Landscape and Vegetation Information	slope	aspect	
1	all cleared	Cemo Quga Pied	4	130	under Pied
2		Amut Cemo Quga	22	110	[illegible]
3		Symp Artr	6	180	
4		Amut Artr Symp	5	250	30' S [illegible]
5		Cemo Amut	2	240	
6		Amut Artr	3	230	at edge of Amut
7		Amut Symp	10	170	[illegible]
8		Open grasses	10	200	[illegible]
9		Open - Artr	3	240	SE edge of [illegible]
10		Amut Artr	0	—	
11		Amut Artr Symp	3	140°	
12		Open grasses	11°	170	open on hill
13		Open grasses Symp	20°	160	SE edge of [illegible]
14		Symp + grasses	gulch		10' N [illegible] gulch
15		Amut Artr	22°	250	open [illegible]
16		Open grasses	24°	270°	
17		Open-grasses	10°	230	
18		Open - grasses	22°	170	[illegible]
19		Amut - grasses	12°	200°	" "
20		Artr Amut Juos	10	150	[illegible]
21		Amut Artr Juos	NA gulch		15 yd [illegible]
22		Artr Symp	NA gulch		10' E of [illegible]
23		Artr Symp	NA gulch		in [illegible]
24		Amut Chry	NA gulch		[illegible]
25		Amut Symp	NA [illegible] hill		[illegible]
Total					

Cemo = Cercocarpus montanus
Pied = Pinus edulis
Quga = Quercus gambelii
Amut = [illegible]

Artr = Artemesia tridentata
Symp = Symphoricarpos spp.
Juos = Juniperus osteosperma
Chry = Chrysothamnus spp.

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET 83-C.6.4.2

ROAM PROGRESS REPORT

Project: 63 Transect: #3 Plot Size: 100 ft²

Location: W½ Sec 19 T.1.S. R99W

Date Pellet Groups Initially Removed: 5/18/75 Survey No: INITIAL

Plot No.	Inspector: [illegible] Date: 5/18/75 Pellet Groups Observed	Transect starts 116 paces up (main) canyon from Cottonwood springs. Landscape and Vegetation Information (slope aspect)
1		Sage/Chrysothamnus/Gooseberry 6° @ 100° ~50' north of stream
2		Sage/Atriplex(1)/Chrysothamnus 14° @ 175°
3		Quercus/Amelanchier 14° @ 035° in middle of stand of [illegible]
4		Sage/Atriplex 28° @ 180°
5		Sage/Juniper (scattered) 8° @ 170° ~15' S of road
6		Sage/Juniper (scattered) 8° @ 132°
7		Sage/Juniper 20° @ 60°
8		Pinyon/Amelanchier 15° @ 240°
9		Amelanchier/Pinyon 15° @ 30° under dead [illegible] juniper log
10		Pinyon/Juniper/Sage 3° @ 112°
11		Sage/Pinyon/Juniper 4° @ 138°
12		Pinyon (under one) 10° @ 005°
13		Amelanchier/Sage 10° @ 330°
14		Sage/Chrysothamnus 12° @ 40°
15		Sage 8° @ 175° [illegible] ~75' [illegible]
16		Sage/Atriplex 36° @ 205° ~30-50' [illegible]
17		Atriplex/Chrysothamnus 22° @ 200°
18		Amelanchier/Sage/Pinyon 10° @ 80°
19		Chrysothamnus/Cercocarpus 12° slope @ 90° between 2 pinyon [illegible]
20		Open very sparse grass 24° slope @ 86° almost bare
21		Pinyon/Amelanchier 18° slope @ 152° at base of large pinyon
22		Cercocarpus ~3° @ 120° ~10' past (N) [illegible] (lying down)
23		Amelanchier - in middle of large clump 12° slope, 90° aspect
24		Amelanchier(2)/Cercocarpus 7° slope, 100°
25		Amelanchier/Cercocarpus/Pinyon, 8° slope, 120°,
Total	—	

Sage = Artemisia tridentata
Chrysothamnus - Chrysothamnus spp.
Gooseberry = Ribes spp.

Quercus = Quercus gambelii
Amelanchier = Amelanchier utahensis
Juniper = Juniperus osteosperma
Pinyon = Pinus edulis monticola

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET 83-C-6.4.-4

Project: 83 Transect: 4 Plot Size: 100 sq ft

Location: W1/2 S20 T1S R99W

Date Pellet Groups Initially Removed: 05/18/75 → Survey No: Initial

Plot No.	Inspector: Date: 05/18/75 Pellet Groups Observed	Landscape and Vegetation Information (Slope Aspect)			
1	N.A.	Amut Artr Symp	0	—	by dead Juos
2		Cemo Amut	10°	310	" " "
3		Amut Cemo	10°	300	edge of Amut
4		Amut Artr	16°	306	inside Amut
5		Amut Artr Symp	12°	320	S edge of Valley
6		Atri Artr	32°	120	N of gulch bottom
7		Atri Artr Chry	34	110	"
8		Atri Amut	2	70	W of old road
9		Amut Juos Artr Cemo	12°	330	
10		Juos Cemo	8°	315	In open area
11		Artr Juos Amut	12°	330	6' N of [illegible]
12		Amut Artr	10°	305	
13		Artr	0		In creek bed
14		Artr	4°	145	In thick [illegible]
15		Artr	3°	160	Under Artr
16		Artr	8°	360	bottom of gulch
17		Artr	52°	70°	
18		Amut	42°	70°	on edge of gulch
19		Amut Artr Juos	25°	70°	under Amut
20		Juos Cemo	46°	15°	at edge of gulch
21		Juos Cemo Amut Artr.	15°	150	by dead Juos
22		Cemo Amut Artr Juos	10°	140	inside Cemo
23		Amut Artr Juos	5°	360	
24		Artr Amut Juos	5°	360	
25		Amut Artr Juos	6°	30	
Total					

Amut = Amelanchier utahensis
Artr = Artemesia tridentata
Symp = Symphoricarpos spp.
Juos = Juniperus osteosperma
Atri = Atriplex spp.
Chry = Chrysothamnus spp.

83-C 6.4.2-2

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET

RBOSP PROGRESS REPORT

Project: 83 Transect: 5 Plot Size: 100 ft²

Location: Midget N+S S4 T2S R99W.

Date Pellet Groups Initially Removed: 10/21/74 Survey No: 1 Spring 1975

Plot No.	Inspector: CLKling Date: 05/20/75 Pellet Groups Observed	Landscape and Vegetation Information	Slope	Aspect	
1	0	Artr Pied	6	346	
2	1	Artr	5	270	near dead Juos
3	1	Artr Amut	7	350	
4	2	Artr Juos	7	310	
5	1	Artr	5	330	80' N of fence
6	0	Artr	8	360	
7	0	Pied Juos Cemo Amut	3	348	
8	0	Pied Juos	7	110	60' S of road
9	0	Pied Juos	3.5	140	
10	2	Artr Juos Amut	7	152	
11	0	Atri Artr	23	170	
12	0	Pied Juos Cemo Artr	26	88	
13	3	Juos	17	112	
14	0	Atri	30	160	
15	0	Artr	23°	172	30' N of road
16	0	Creek bottom	0°	—	burned area
17	1	Artr Symp	21	318	
18	1	Artr Amut	20	292	
19	0	Pied Juos Artr	flat –		
20	1	Artr	9	354	
21	0	Artr	15	18°	
22	1	Pied Juos	5	38	
23	0	Pied Juos Artr	12	350	
24	0	Pied Juos	8	342	
25	0	Pied Juos	10°	64	pre-chained plantation
Total	14				

Artr = Artemisia tridentata
Pied = Pinus edulis
Juos = Juniperus osteosperma
Amut = Amelanchier utahensis

Atri = Atriplex spp.
Symp = Symphoricarpos spp.

ECI

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET 83-C.6.4.2-6

[illegible] PROGRESS REPORT

Project: 83 Transect: 6 Plot Size: [illegible]

Location: E½ S3 T2S R97W

Date Pellet Groups Initially Removed: 10/[illegible]/74 Survey No: 1 Spring 1975

Plot No.	Inspector: GDUphoff. Date: 05/20/75 Pellet Groups Observed	Landscape and Vegetation Information (slope, aspect)
1	0	Juos Chry 30 172
2	0	Artr Atri 28 108 much [illegible]
3	0	Open Atri Chry 30° - 130° ~40' N of road
4	0	Artr bottomland flat ~300' S of road
5	0	Artr flat dry [illegible]
6	0	Amut Cemo Pied 25° 340°
7	1	Artr <1° - bottom of canyon
8	2	Artr <1°
9	0	Artr <1°
10	1	Cemo Amut 12° - 300° [illegible]
11	0	Juos N.A. between junipers
12	0	Artr Chry 22° - 240
13	0	Artr 8° 270
14	2	Artr Cemo Amut Pied 8 310
15	1	Artr Pied Cemo Juos 15 50 Between 2 small Pied
16	0	Cemo Juos Amut 15 40
17	1	Cemo Artr Juos 3 - 310
18	0	Open juniper type 30 - 70°
19	1	Artr Juos 18 60 under Juos
20	0	Juos Artr Pied 18 75
21	0	Juos Amut Cemo Pied [illegible] gulch [illegible] in [illegible] Juos
22	0	Pied Amut 25 20 South of gully
23	0	Artr Juos 12 60 Under dead Juos
24	0	Pied Amut Juos 6 280
25	2	Artr Juos 3 350
Total	11	

Juos Juniperus osteosperma
Chrysothamnus spp = Chry
Artr = Artemesia tridentata
Amut = Amelanchier utahensis
Cemo = Cercocarpus montanus
Pied = Pinus edulis

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET 03-C.6.4.2-1

[illegible] REPORT

Project: R3 Transect: 8 Plot Size: 1/100 ft²

Location: W 1/2 S 25 T 15 R 100 W

Date Pellet Groups Initially Removed: 05/19/75 Survey No: Initial

Plot No.	Inspector: GD Urhoff, Cutting. Date: 05/19/75 Pellet Groups Observed	Landscape and Vegetation Information	Slope	Aspect	
1	N.A.	Amut Artr	42	50	
2		Amut Artr Symp	20	50	
3		Artr Amut	24	90	
4		Artr Amut	23	170	
5		Artr Symp Chry	22	160	
6		Artr Symp	24	160	
7		Artr Amut	14	360°	200' S of gulch [illegible]
8		Amut Artr	20	110	50 yd S of gully
9		eroded gulch bank	34	130	
10		Amut Artr	16	310	under Artr
11		Amut Artr	16	300	
12		Amut Symp	22	300	
13		Amut Artr	15	235	
14		Amut Artr	8	270	
15		Ceмo Amut	15°	310	
16		Amut Artr Symp	5	280	
17		Amut Artr	3	10	
18		Amut Quega Symp	7	160	
19		Amut Cemo Pied	16	140	
20		Amut Cemo Symp	17	150	
21		Cemo Amut	10	160	next to small gully
22		Amut Cemo Artr	26	150	
23		Amut - grass	34	130	
24		Chry Symp Artr	18°	130	50 yd N of gulch
25		Artr, Amut, Symp	28	320	200' S of gulch
Total					

Amut Amelanchier utahensis — Cemo Cercocarpus montanus

Artr Artemisia tridentata — Quga Quercus gambelii

Symp Symphoricarpos spp. — Pied Pinus edulis

Chry Chrysothamnus spp. — [illegible]

83-C.6.4.2

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET

[illegible] PROGRESS REPORT

Project: 83 Transect: 7 Plot Size: 100 sq ft

Location: E½ S8 T2S R99W

Date Pellet Groups Initially Removed: 10/23/74 Survey No: 1, Spring 1975

Plot No.	Inspector: [illegible] Uphoff [illegible] Date: 05/20/75 Pellet Groups Observed	Landscape and Vegetation Information	Slope	Aspect	
1	0	Juos, Pied	10	194	[illegible]
2	0	Juos Pied Amut Artr	20	184	
3	0	Pied. Cemo	16	120	
4	0	Pied Amut	7	180	
5	0	Ribes	43	215	valley slope [illegible]
6	0	Cemo Artr Atri	30	106	[illegible] area
7	0	Artr Atri	4	186	toe of cliff
8	0	Artr Chry	NA. bottom		20' S of stream
9	0	Artr Symp	40°	345	
10	0	Cemo Amut Pied	22	320	
11	2	Artr Amut Cemo Symp	10	330	
12	0	Artr Amut	12°	360	
13	1	Artr Pied Juos	10	350	
14	1	Artr Juos	26	90	between big Juos
15	1	Artr Amut Juos	23°	20	
16	0	Open Juos	14	200	
17	0	Artr Symp	34°	350	edge of gully
18	1	Artr Juos	7	230°	by dead Juos
19	1	Artr Symp	12	320	
20	0	Artr	9	320	
21	0	Artr Symp	13	310	
22	0	Artr	9	330	
23	0	Artr Juos	9	320	
24	0	Artr Pied Amut	9	310	
25	0	Artr Amut Pied	5°	350	
Total	7				

Juos Juniperus osteosperma — Chry - Chrysothamnus spp.
Pied Pinus edulis — Cemo = Cercocarpus montanus.
Amut Amelanchier utahensis
Artr Artemesia tridentata — Ribes = Ribes species

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET B3-C.6.4.2-7

PROGRESS REPORT

Project: 83 Transect: 9 Plot Size: 100 ft²

Location: E½ S28 T1S R99W

Date Pellet Groups Initially Removed: 05/16/75 Survey No: Initial

Plot No.	Inspector: GD Uphoff, CL Kling Date: 05/16/75 Pellet Groups Observed	Landscape and Vegetation Information	Slope	Aspect	
1		Juos Artr	3°	360	
2		Juos Artr	3	280	
3		Artr	flat	—	
4		Artr	2°	280	N of old fenceline
5		Artr	2	280	near cactus
6		Artr	5	280	in old fenceline
7		Artr	5	282	
8		Artr	5	100	NW of [illegible]
9		Artr Juos	3	100	edge of Juos
10		Pied Juos	5	130	
11		Pied Juos	3	130	[illegible]
12		Pied Juos	2	130	Near dead tree
13		Pied Juos	2-3	130	
14		Pied Juos	Flat	—	
15		Artr Juos	3	287	
16		Artr	3	287	N of fence
17		Artr Juos	3	287	burrow near
18		Artr Juos scattered	5	287	
19		Artr Amut	flat	—	small trail [illegible]
20		Pied Artr	3-5	287	
21		Juos Artr	5	287	
22		Pied Juos	15	280	50' N of pole 10' S [illegible]
23		Pied Juos	18	100	near [illegible]
24		Pied Juos Cemo	24	80	above [illegible]
25		Pied Juos	15	100	—
Total No.					

Juos Juniperus osteosperma Cemo Cercocarpus montanus

Artr Artemesia tridentata

Pied Pinus edulis

[illegible]

Photo at transect [illegible]
[illegible] 11.8
O Pied 11.7
Corner 12.2

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET 83-C.6.4.

PROGRESS REPORT

Project: 83 Transect: 10 Plot Size: 100 ft²

Location: W ½ S 36 T 1S R 100 W.

Date Pellet Groups Initially Removed: 05/17/75 Survey No: Initial

Plot No.	Inspector: GD Ugaloff, G Reyes, CL King. Date: 05/17/75 Pellet Groups Observed	Landscape and Vegetation Information	Slope	Aspect	
1		Amut	30	340	
2		Quga Amut	35	334	
3		Quga Amut	22°	336	thick oak
4		Amut Artr	10	340	in middle of ... 10' S of edge
5		Amut Artr	13	348	
6		Artr Amut	14	330	
7		Artr Amut	5	330	
8		Amut Artr	3	360	N of road
9		Amut Artr	2	109	Stake S of road
10		Amut Artr	24	150	
11		Amut Artr	3	170	
12		Artr	4	154	
13		Artr Amut	22	90	
14		Artr Amut	5	150	
15		Amut Quga	18°	150	middle of Quga
16		Amut Artr grass	11	118	
17		Artr	4	144	
18		Amut Artr	14	344	
19		Amut Artr	10	352	
20		Amut Artr	10	2	
21		Amut Artr	7	350	middle of ...
22		Amut Artr	4	348	
23		Artr Amut	6	110	25' S of road
24		Artr Amut	17	140	
25		Amut Artr	16	90	
Total					

Amut = Amelanchier utahensis

Quga = Quercus gambelii

Artr = Artemesia tridentata

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET

83-C.6.4

PROGRESS REPORT

Project: 83 Transect: 11 Plot Size: 100 ft²

Location: E½ S 1 T2S R100W

Date Pellet Groups Initially Removed: 05/17/75 Survey No: Initial

Plot No.	Inspector: Uphoff, Rieger, Kling Date: 05/17/75 Pellet Groups Observed	Landscape and Vegetation Information	Slope °	Aspect °
1		Artr grasses	<2	140
2		Amut Artr	3	120
3		Amut Pied	7	120
4		Amut Pied Putr	10	130
5		Amut Artr	17	98
6		Amut Artr	16	110
7		Amut	18	60
8		Symp	37	160
9		Artr	38	340
10		Artr Symp Chry	2	340
11		Amut Artr	32	338
12		Amut Artr	30	330
13		Artr grasses	15	350
14		Putr	32	125
15		Amut Artr	26	114
16		Artr Amut Pied	28	312
17		Amut Artr	20	300
18		Amut Artr Pied	4	314
19		Amut Artr Pied	2	—
20		Amut Artr Pied	4	30
21		Amut Artr Pied	24	36
22		Amut Artr	24	120
23		Amut Artr	8	200
24		Amut Artr	30	270
25		Artr Chry	22	240
Total				

Artr = Artemisia tridentata
Amut = Amelanchier utahensis
Pied = Pinus edulis
Symp = Symphoricarpos sp
Juos = Juniperus osteosperma
Chry = Chrysothamnus sp

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET YB-C 6.[illegible]

PROGRESS REPORT

Project: 83 Transect: 12 Plot Size: [illegible] ft²

Location: E½ S13 T2S R 100 W

Date Pellet Groups Initially Removed: 05/16/75 Survey No: Initial

Plot No.	Inspector: [illegible] D Kistner CL Kling Date: 05/16/75 Pellet Groups Observed	Landscape and Vegetation Information	Slope°	Aspect°	
1		Pied Artr Amut	3	175	
2		Artr	5	210	
3		Pied Amut Artr	8	180	Sof Amut
4		Amut Artr	15	170	
5		Amut Artr	12	100	under Amut
6		Pied Amut	17	130	
7		Amut Artr	10	240	Sof gully
8		Amut Pied	10	250	
9		Amut Pied	8	230	[illegible] Pied
10		Amut	5	210	[illegible]
11		Amut Pied	8	200	
12		Pied Amut	15	180	
13		talus slope	28	160	bare [illegible]
14		Forbs	3	150	bare [illegible]
15		Artr Amut	3	360	base of [illegible]
16		Amut Artr	25	350	side of gully
17		Amut Artr	20	340	
18		Amut Artr	12	320	
19		Amut Artr	15	345	
20		Amut Artr Pied	2	360	[illegible]
21		Artr Amut	11	90	[illegible] S of [illegible]
22		Juos Artr	24	90	
23		Amut Artr	28	90	on sidehill
24		Artr - grasses	15	110	
25		Artr	3-5	100	[illegible]
Total					

Pied - Pinus edulis
Artr - Artemisia tridentata
Amut - Amelanchier utahensis
[illegible]

SINGLE TRANSECT PELLET GROUP COUNT FIELD DATA SHEET 83-C.6.4.2-12

Project: 83 Transect: 13 Plot Size: 100 ft²

Location: E½ S16 T2S R99W.

Date Pellet Groups Initially Removed: 05/16/75 Survey No: Initial

Plot No.	Inspector: GDU photo, D Kostrual, C.Kling. Date: 05/16/75 Pellet Groups Observed	Landscape and Vegetation Information	Slope	Aspect	
1		Artr	10	300	200 yd S of [illegible]
2		Artr Amut	9	330	
3		Artr Amutt	15	310	
4		Artr Pied	15	290	N of P line
5		Artr Pied	20	280	S of P line
6		Artr Pied	18	280	
7		Artr	10	300	
8		Artr	5	270	N of road
9		Artr Pied Juos	5	270	S of road.
10		Artr	6	90°	
11		Artr Pied	5°	150	
12		Artr Pied	<1°	—	
13		Artr	<1°	—	under Syc 50' S of [illegible]
14		Artr Pied	<1	—	120' S of road
15		Artr Juos	<1		50' S of 3 track [illegible]
16		Artr Juos	5°	150	under Juos
17		Pied Artr	5	150	under Pied
18		Juos Pied	10°	120	
19		Juos	4	180	20' from dead trees
20		Pied and Juos	9	210	
21		Pied Juos	15	220	near dead trees
22		Pied Juos	21	220	
23		Pied Juos Cemo	27	230	
24		Pied Chry	37	270	cliffs in gully
25		Pied Artr	25	230	gully side
Total					

Artr = Artemisia tridentata

Amut = Amelanchier utahensis

Pied = Pinus edulis

Juos = Juniperus osteosperma

Cemo = Cercocarpus montanus

Chry = Chrysothamnus ~~spp.~~

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM F3-C6

Proj/Study 83/61 Date Flown 4/14/75 Species Elk Survey Area [illegible] Study Area

Observers: RF [illegible] LP D Van Horn Pilot/Aircraft [illegible] / Cessna 206

Start 0532 Finish 1038 Est. ground speed & alt. 75-80 mph @ 150 feet above ground.

Counting conditions: Ground cover poor Light poor Air fair

Weather: Temp. 30-37° Wind ~ Cloud cover high, heavy Analyst [illegible]

Observations				Location	Notes and Comments
♂	♀	JUV	U		
			6	N of Big Duck Creek North Fork	southern exposure bedded down
			6		

Total Animals Counted: 6

Animal Distribution: one group south slope -

REDSP PROGRESS REPORT

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM
Observed during elk and feral horse aerial survey C.6.6.3.1.2.-1D

..oj/Study 83/01 Date Flown 4 March 75 Species feral horses Survey Area Rio Blanco Study Area

..bservers: R RDHeathern L R C Kling Pilot/Aircraft Leo Pane / Cessna 206

..tart 0900 Finish 1200 Est. ground speed & alt. 75 mph @ 150' above ground

..ing conditions: Ground cover poor east better west Light fair/good Air good

..eather: Temp. 30/40° Wind ~ Cloud cover high thin Analyst RDH and CLK

Observations			Location	Notes and Comments
	JUV	U		
		13	84 mesa just before Duck Creek	P.J. habitat type recount, after first pass they moved into open
		6	road on Airplane Ridge	3 black 1 white, 1 grey, 1 brown
4	1		Transect #1 C-a Tract. S. Box Elder	ADULT DARK-3; ADULT White-1; JUV. DK-1
		1	WOLF RIDGE SEC 31	BLACK ADULT
		1	Sec 19 T1S R97W N. BIG. DUCK	BROWN W/ WHITE FACE
4	1		AIR PLANE RIDGE	DARK, 4
4	2		KU GULCH	WHITE ADULT; BLACK JUV-2; BROWN ADULT-? BLACK ADULT
4			SOUTH facing Slope Dry fork	BROWN to DARK BROWN, ALL 4.
(16)	4	21		

..tal Animals Counted: 41

..eral Distribution: most west of tract, one band on 84 mesa

RBOSP PROGRESS REPORT

[illegible]

roj/Study [illegible] Date Flown [illegible] Species [illegible] Survey Area [illegible]

bservers: RF [illegible] LR [illegible] Pilot/Aircraft [illegible]

tart [illegible] Finish [illegible] Est. ground speed & alt. 35 mph @ [illegible] above ground

ur[illegible]ng conditions: Ground cover [illegible] Light [illegible] Air [illegible]

eather: Temp. [illegible] Wind [illegible] Cloud cover 0-100% Analyst DWH & [illegible]

bservations			Location	Notes and Comments
[illegible]	JUV	U		
		9	[illegible] ridge	[illegible] exposure 7 dark 2 light
[illegible]	1		[illegible]	[illegible]
		3	[illegible] ridge North Fork	all dark color
[illegible]	3		[illegible]	[illegible]
		5	[illegible] ridge	2 brown 3 black
		4	[illegible] ridge	3 dark 1 light.
		16	South of [illegible] Creek [illegible]	
		4	[illegible]	[illegible]
			DWH	
4	2		SOUTH OF TRACT ON [illegible] ONE, S. OF BOX ELDER	SAGEBRUSH; ADULT DARK - 2; ADULT WHITE - 1; JUV. DARK - 2
[illegible]	2		NORTH OF DRY FORK, [illegible]	5 ADULT DARK; 2 JUV. DARK
3	1		SAGEBRUSH HILL	ALL DARK
4			N. DRY FORK	3 DARK; 1 WHITE
[illegible]	9	41		

tal Animals Counted: 79

imal Distribution: West of Tract

[illegible]

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

Observed during [illegible]

Proj/Study 83/61 Date Flown 4/8/75 Species Feral Horse Survey Area [illegible]

Observers: [illegible] Pilot/Aircraft [illegible]

Start 0845 Finish 1007 Est. ground speed & alt. 75 mph @ [illegible] above ground

[illegible]g conditions: Ground cover Excellent Light Excellent Air Excellent

Weather: Temp. 28-30 Wind — [illegible] Cloud cover NONE Analyst [illegible]

Observations			Location	Notes and Comments
[illegible]	[illegible]	U		
[illegible]		4	1 white 3 [illegible], north of road on 34 [illegible]	2
				Tracks in Water Gulch
		7	[illegible] Sagebrush Hill	[illegible] white 1 [illegible] 4 dark
		1	[illegible] Gulch	brown
		5	Ridge between [illegible] and Landing Strip	3 dark 2 white
		5	S.W. corner of tract	3 gray 2 black
6			N. DRY FORK ON [illegible]	1 light 5 dark
6	2		S. BOX ELDER SEC17 T2S R99W	6 dark, 2 light
				[illegible] juv [illegible] juv
		12	84 MESA Sec17 T1S R98W	2 light, 10 dark
		4	COTTON [illegible] FK. S.31 T1S R.97W	3 black, 1 gray
		1	Corral Gulch S6. T2S R99W	Black
[illegible]	2	39		

Total Animals Counted: 53

General Distribution: [illegible] small bunches [illegible] of tract.

[illegible]

ECI

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

Proj/Study [illegible] Date Flown [illegible] Species [illegible] Survey Area [illegible] Study Area

Observers: R[illegible] L[illegible] Pilot/Aircraft [illegible]

Start [illegible] Finish [illegible] Est. ground speed & alt. 75 [illegible] above ground

Ou[illegible]ng conditions: Ground cover poor Light good Air fair

Weather: Temp. [illegible]/34° Wind — Cloud cover high, hazy Analyst [illegible]

Observations				Location	Notes and Comments
♂	♀	[illegible]	[illegible]		
			6	North of Corral Gulch on Trout Cr.	1 buckskin, 1 dark, 1 gray, 3 bay
			4	between Forks of Smoke Springs	[illegible]
			1	Right Fork of Smoke Springs	[illegible]
		1	8	Dry Fork	3 gray [illegible] 1 bay [illegible]
		1	4	Ridge up Corral Gulch	1 white 3 brown 1 [illegible] foal
			5	North of Dry Fork on Deadhorse Ridge	[illegible] black 1 brown
			4	B gully 84 mesa	1 brown, 1 dark, 2 white
		2	10	84 Mesa South of Ventom Gully	[illegible], [illegible] gray, 3 [illegible], [illegible]
			6	[illegible]	2 white, 3 black, 1 [illegible]
		1	4	Right Fork Smoke Springs [illegible]	1 black, 3 white [illegible]
			10	[illegible] Corral Gulch	[illegible]
			8	[illegible] Corral Gulch	1 brown 1 black 3 gray 2 dark
		5	69		

Total Animals Counted: 74

Animal Distribution: [illegible] groups, animals west of Trout in gulch bottoms.

[illegible] PROGRESS REPORT

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

[illegible]/Study 23/[illegible] Date Flown 12/20/7[illegible] Species Mule Deer Survey Area [illegible] Elk [illegible] [illegible] [illegible] 15, 6, 7, [illegible]

[illegible]servers: F[illegible] L[illegible] P[illegible] Pilot/Aircraft [illegible]

[illegible]art [illegible] Finish - Est. ground speed & alt. 80 [illegible] above Ground

[illegible]g conditions: Ground cover Excellent Light [illegible] Air Good

[illegible]ather: Temp. 5° Wind Slight SW Cloud cover High Variable Analyst [illegible]

[illegible]servations				Location	Notes and Comments
	♀	[illegible]	[illegible]	* Observed During Elk & Horse Census,	Magpie? Blue Mts.
			10	#7 ½ mi N of West Census Area	
			15	#7 on corner	High in Snow
			6	#6 North of Big Duck	Sage & Serviceberry
			8	#6 on Little Duck creek	
			5	to South	
			2	#6 on bottom Little Duck Creek	
			4	#6 North of Little Duck Creek	bedded.
			4	#5 top of Hill N of Little Duck Creek	
			4	#5 Start of Elk Transect	P.J. mnt brush some bedded
			4	#9 Bottom of Lam Springs Gulch	
			4	#9 South of road	mnt brush.
			4	T.7 at N. end of Transect	sage Shrub
			2	T.6 ridge S. of Big Duck	" "
			1	T.6 " " " " "	" "
			1	T.8 South of Big Duck, 9 ridges	" "
	2	1		T.8 2 ridges north of Big Duck	" "
	2	1		T.8 before end of Transect	" "
1	7			T.9 1st ridgetop past start of Tran.	" "
			4	T.9 about 3 sections into Transect	" ", bedded down
		2	93		

[illegible]tal Animals Counted: 107

[illegible]al Distribution: many north of west census area.

RECORD PROPERLY [illegible]

2.3.5 Mammalian Predators

2.3.5.1 Introduction

No change has occurred since Progress Report-2. See section 3.7.1 in Progress Report-2 for the introduction to the mammalian predator section.

2.3.5.2 Methods

No change has occurred since Progress Report-2. See section 3.7.2 in Progress Report-2 for specific methods used in mammalian predator studies.

2.3.5.3 Results

Mammalian predator data were not gathered during the reporting quarter March through May, 1975.

2.3.6 Winter Track Counts

2.3.6.1 Introduction

No change has occurred since Progress Report-2. See section 3.8.1 in Progress Report-2 for the introduction to the winter track count section.

2.3.6.2 Methods

No change has occurred since Progress Report-2. See section 3.8.2 in Progress Report-2 for specific methods used in winter track count studies.

2.3.6.3 Results

Winter track count data were not gathered during the reporting quarter March through May, 1975.

2.3.7--Avifauna

2.3.7 Avifauna

2.3.7.1 Introduction

No change has occurred since Progress Report-2. See section 3.9.1 in Progress Report-2 for introduction to avifauna section.

2.3.7.2 Methods

No change has occurred since Progress Report-2. See section 3.9.2 in Progress Report-2 for specific methods used in avifauna studies.

2.3.7.3 Results

Thirteen different vegetation associations in 20 separate locations were sampled in April, 1975 by Emlen strip census (Emlen, 1971). Emlen strip transect locations, representing a variety of different slope aspects and elevations were selected in each vegetation type; these generally correspond to the small mammal live-trap grids. A total of 27 different avian species was recorded along Emlen strip transects during the sampling period. Twenty out of 21 transects were completed, however, high winds generally hampered field activities during this sampling period. Data are presented in Table 2.3-19.

Qualitative "walk through" surveys to record avian species not encountered along Emlen transects were conducted during the same periods as were Emlen strip censuses. These surveys documented the presence of an additional 34 avian species during the early spring sampling period.

Waterfowl surveys at the Stake Springs impoundment were conducted twice during April, 1975. Two waterfowl species, the mallard and green-winged teal, were observed.

Night owl transects were conducted April 26-27 and April 28-29, 1975. Only one great horned owl was heard.

Aerial sage grouse strutting ground (lek) surveys were conducted on April 25 and 26, 1975. Two leks were discovered east of the Cathedral Bluffs. Greater sandhill cranes, classified as an endangered species by the Colorado Division of Wildlife (Colorado Division of Wildlife, 1974) were observed in sagebrush areas on 84 Mesa and near Little Duck Creek. An estimated 30-35 birds were first observed on April 17, 1975 and later repeatedly, from April 25 through April 30, 1975. The cranes fed and displayed (danced) extensively on 84 Mesa in areas of sparse sagebrush.

Ground surveys to locate raptor nests were conducted between April 26 and April 30, 1975. Forty-three nest sites were located. Of these, 20 nests were active, either containing eggs or chicks, or both.

Table 2.3-19. Average number of birds observed per Emlen strip transect in thirteen vegetation types surveyed during April, 1975 for RBOSP [1/]

Avian Species	Aspen (1) [2/]	Douglas Fir (1)	Upland Meadow (2)	Mixed Brush (2)	Pinyon-Juniper (North Slope) (3)	Pinyon-Juniper (South Slope) (2)	Pinyon-Juniper/ Sagebrush (1)	Pinyon-Juniper/ Mixed Brush (1)	Sagebrush (2)	Greasewood/ Sagebrush (2)	Rabbitbrush (1)	Riparian (1)	Bottomland Meadow (1)	Total By Species
Mallard												13		13
Green-winged teal												1		1
Kildeer												4		4
Common snipe													1	1
Common flicker	1													1
Downy woodpecker	1													1
Western wood pewee												1	1	2
Horned lark			0.5						1.5					2
Steller's jay		1												1
Scrub jay						2						2		4
Pinyon jay						13.5								13.5
Black-billed magpie												2		2
Common raven												4		4
Black-capped chickadee	3	4												7
Mountain chickadee	14	7												21
Red-breasted nuthatch		3												3
Sage thrasher										1.5				1.5
American robin												7	3	10
Mountain bluebird				1						6	3	13	1	24
Water pipit												3		3
Starling												3		3
Western meadowlark												2	1	3
Red-winged blackbird												13	9	22
Rufous-sided towhee											1			1
Dark-eyed junco	3									11		10		24
Gray-headed junco	12			5						12		25		54
Song sparrow												1		1
Mean Number of Birds Observed Per Emlen Strip Transect	34	15	0.5	6	0	15.5	0	0	1.5	30.5	4	104	16	227.0
Total Different Species	6	4	1	2	0	2	0	0	1	4	2	16	6	

[1/] See Table 2.3-20 for correspondence between thirteen vegetation types and associated Emlen strip transects.

[2/] Number of Emlen strip transects through the vegetation type.

Table 2.3-20. Correspondence between thirteen vegetation types and the associated Emlen strip transects surveyed during spring 1975 for RBOSP.

Vegetation Type	Associated Transect Number and Name
1. Aspen	Transect 20 (Aspen)
2. Douglas fir	Transect 19 (Douglas Fir-F)
3. Upland meadow	Transects 9 and 13 (Upland Meadow; Ridgetop Meadow)
4. Mixed brush	Transects 11 and 18 (Tract Mountain Brush; Mountain Brush-E)
5. Pinyon-juniper (North slope)	Transects 2, 6 and 16 (Cath Road P-J; Gasline P-J; Hunting Club P-J/C)
6. Pinyon-juniper (South slope)	Transects 4 and 15 (Cliff P-J; South P-J/B)
7. Pinyon-juniper/Sagebrush	Transect 12 (Horse-P-J/Sage)
8. Pinyon-juniper/Mixed brush	Transect 10 (Tower P-J/Brush)
9. Sagebrush	Transects 3 and 17 (Boothill sage; Sage-D)
10. Greasewood/Sagebrush	Transects 5 and 14 (Boxelder Bottom; Greasewood/Sage-A)
11. Rabbitbrush	Transect 7 (Rabbitbrush)
12. Riparian	Transect 21 (Riparian)
13. Bottomland meadow	Transect 1 (Bottomland Meadow)

Sixty-one bird species were tallied during all avian field census activities conducted during the early spring field period (April, 1975). A total of 86 avian species has been tallied since the initiation of field sampling and these species are listed in Table 2.3-21.

As with the fall-winter periods, the variability of early spring avian census data places severe limitations upon the kinds of conclusions which may be drawn from them. Therefore, the summary of field data gathered during the April sampling period will be interpreted below only in a brief manner.

2.3.7.3.1 General Avifauna (Emlen Strip Censuses)

2.3.7.3.1.1 Aspen

Thirty-four birds representing six different avian species were recorded during April along one Emlen transect. The mountain chickadee and gray-headed junco were the most frequently observed species along the aspen transect. The common flicker, downy woodpecker, black-capped chickadee and dark-eyed junco were also observed, but in lower numbers(Table 2.3-19).

2.3.7.3.1.2 Douglas Fir

Fifteen birds representing four different avian species were recorded along one transect in Douglas fir during April. A single mixed flock of mountain chickadees, black-capped chickadees and red-breasted nuthatches accounted for 14 of the fifteen birds observed.

2.3.7.3.1.3 Upland Meadow

Only one avian species was recorded in April along two Emlen transects in the upland meadow vegetation type. High winds and heavy snow accumulation possibly limited avian utilization of this high elevation vegetation type in early spring.

2.3.7.3.1.4 Mixed Brush

Two Emlen strip transects through mixed brush communities documented the presence of 12 birds representing only two avian species. The gray-headed junco was observed more often than the mountain bluebird. The presence of only two species in this habitat may be partially attributed to the high snow depth found on both transects.

2.3.7.3.1.5 Pinyon-Juniper (North Slope)

Three Emlen strip transects through pinyon-juniper north slope sites failed to reveal any bird activity. Harsh weather conditions experienced throughout the April sampling period may partially explain low bird numbers in areas where higher densities were expected.

Table 2.3-21. Species of birds observed during field investigations from October 1974 through May 1975 in the vicinity of Tract C-a for RBOSP [1/]

ORDER FAMILY Species	Common Name	Field Code [3/]
CICONIIFORMES		
ARDEIDAE		
Ardea herodia [2/]	Great blue heron	ARHE
CICONIIDAE		
Plegadis chihi [2/]	White-faced ibis	PLCH
ANSERIFORMES		
ANATIDAE		
Anas platyrhynchos [2/]	Mallard	ANPL
Anas crecca [2/]	Green-winged teal	ANCR
Anas discors [2/]	Blue-winged teal	ANDI
FALCONIFORMES		
ACCIPITRIDAE		
Accipiter cooperii [2/]	Cooper's hawk	ACCO
Buteo jamaicensis [2/]	Red-tailed hawk	BUJA
Buteo lagopus	Rough-legged hawk	BULA
Aquila chrysaetos [2/]	Golden eagle	AQCH
Haliaeetus leucocephalus	Bald eagle	HALE
Circus cyaneus [2/]	Marsh hawk	CICY
FALCONIDAE		
Falco mexicanus	Prairie falcon	FAME
Falco peregrinus [2/]	Peregrine falcon	FAPE
Falco sparverius [2/]	American kestrel	FASP
GALLIFORMES		
TETRAONIDAE		
Dendragapus obscurus	Blue grouse	DEOB
Centrocercus urophasianus [2/]	Sage grouse	CEUR
GRUIFORMES		
GRUIDAE		
Grus canadensis tabida [2/]	Greater sandhill crane	GRCA

Table 2.3-21. (Continued)

ORDER FAMILY Species	Common Name	Field Code 3/
CHARADRIIFORMES		
CHARADRIIDAE		
Charadrius vociferus 2/	Killdeer	CHVO
SCOLOPACIDAE		
Capella gallinago 2/	Common snipe	CAGA
Actitis macularia 2/	Spotted sandpiper	ACMA
Tringa flavipes 2/	Lesser yellowlegs	TRFL
PHALAROPODIDAE		
Steganopus tricolor 2/	Wilson's phalarope	STTR
COLUMBIFORMES		
COLUMBIDAE		
Zenaida macroura 2/	Mourning dove	ZEMA
STRIGIFORMES		
STRIGIDAE		
Otus asio	Screech owl	OTAS
Bubo virginianus 2/	Great horned owl	BUVI
Glaucidium gnoma	Pygmy owl	GLGN
Asio flammeus	Short-eared owl	ASFL
PICIFORMES		
PICIDAE		
Colaptes auratus cafer 2/	Common (red-shafted) flicker	COAC
Dendrocopos pubescens 2/	Downy woodpecker	DEPU
PASSERIFORMES		
TYRANNIDAE		
Sayornis saya 2/	Say's phoebe	SASA
Contopus sordidulus 2/	Western wood pewee	COSO
ALAUDIDAE		
Eremophila alpestris 2/	Horned lark	ERAL

Table 2.3-4. (Continued)

ORDER FAMILY Species	Common Name	Field Code 3/
PASSERIFORMES (Continued)		
HIRUNDINIDAE		
Iridoprocne bicolor 2/	Tree swallow	IRBI
Stelgidopteryx ruficollis 2/	Rough-winged swallow	STRU
Hirundo rustica 2/	Barn swallow	HIRU
CORVIDAE		
Cyanocitta stelleri 2/	Steller's jay	CYST
Aphelocoma coerulescens 2/	Scrub jay	APCO
Pica Pica 2/	Black-billed magpie	PIPI
Corvus corax 2/	Common raven	COCO
Gymnorhinus cyanocephalus 2/	Pinyon jay	GYCY
Nucifraga columbiana 2/	Clark's nutcracker	NUCO
PARIDAE		
Parus atricapillus 2/	Black-capped chickadee	PAAT
Parus gambeli 2/	Mountain chickadee	PAGA
Parus inornatus	Plain titmouse	PAIN
Psaltriparus minimus	Common bushtit	PSMI
SITTIDAE		
Sitta carolinensis 2/	White-breasted nuthatch	SICA
Sitta canadensis 2/	Red-breasted nuthatch	SICN
Sitta pygmaea	Pygmy nuthatch	SIPY
CERTHIIDAE		
Certhia familiaris	Brown creeper	CEFA
MIMIDAE		
Oreoscoptes montanus 2/	Sage thrasher	ORMO
TURDIDAE		
Turdus migratorius 2/	American robin	TUMI
Sialia currucoides 2/	Mountain bluebird	SICU
Myadestes townsendi	Townsend's solitaire	MYTO

Table 2.3-4, (Continued)

ORDER FAMILY Species	Common Name	Field Code 3/
PASSERIFORMES (Continued)		
SYLVIIDAE		
Polioptila caerulea 2/	Blue-gray gnatcatcher	POCA
Regulus calendula	Ruby-crowned kinglet	RECA
MOTACILLIDAE		
Anthus spinoletta 2/	Water pipit	ANSP
BOMBYCILLIDAE		
Bombycilla cedrorum	Cedar waxwing	BOCE
LANIIDAE		
Lanius excubitor	Northern shrike	LAEX
Lanius ludovicianus 2/	Loggerhead shrike	LALU
STURNIDAE		
Sturnus vulgaris 2/	Starling	STVU
PARULIDAE		
Vermivora celata 2/	Orange crowned warbler	VECE
Vermivora virginiae 2/	Virginia's warbler	VEVI
Dendroica coronata 2/	Yellow-rumped warbler	DECO
PLOCEIDAE		
Passer domesticus	House sparrow	PADO
ICTERIDAE		
Sturnella neglecta 2/	Western meadowlark	STNE
Agelaius phoeniceus 2/	Red-winged blackbird	AGPH
Euphagus cyanocephalus	Brewer's blackbird	EUCY
FRINGILLIDAE		
Carpodacus mexicanus	House finch	CAME
Leucosticte atrata	Black rosy finch	LEAT
Leucosticte australis	Brown-capped rosy finch	LEAU
Spinus pinus 2/	Pine siskin	SPPI
Chlorura chlorura 2/	Green-tailed towhee	CHCH

Table 2.3-4. (Continued)

ORDER FAMILY Species	Common Name	Field Code [3/]
PASSERIFORMES (Continued)		
FRINGILLIDAE		
Pipilo erythrophthalmus [2/]	Rufous-sided towhee	PIER
Pooecetes gramineus [2/]	Vesper sparrow	POGR
Amphispiza belli	Sage sparrow	AMBE
Melospiza melodia [2/]	Song sparrow	MEME
Junco hyemalis [2/]	Dark-eyed junco	JUHY
Junco caniceps [2/]	Gray-headed junco	JUCA
Spizella arborea [2/]	Tree sparrow	SPAR
Spizella passerina [2/]	Chipping sparrow	SPPA
Spizella breweri [2/]	Brewer's sparrow	SPBR
Zonotrichia leucophrys [2/]	White-crowned sparrow	ZOLE
Passerella iliaca	Fox sparrow	PAIL
Rhynchophanes mccownii	McCown's longspur	RHMC
Calcarius ornatus	Chestnut-collared longspur	CAOR
Plectrophenax nivalis	Snow bunting	PLNI

[1/] The following authorities are used for bird nomenclature:

American Ornithologists' Union. 1957. Checklist of North American birds, fifth edition. Port City Press, Baltimore, Maryland. 691 pages.

American Ornithologists' Union. 1973. Thirty-second supplement to the American Ornithologists' Union checklist of North American birds (fifth edition, 1957). Auk 90: 411-419.

[2/] Species encountered during the April field period.

[3/] Four letter code, designates the scientific name and is used to simplify the recording of field data.

2.3.7.3.1.6 Pinyon-Juniper (South Slope)

Two Emlen strip transects through south slope pinyon-juniper habitat were surveyed in April. Thirty-one individual birds of two species were recorded. Eighty-six percent of all birds encountered were flocked pinyon jays. The remainder were scrub jays.

2.3.7.3.1.7 Pinyon-Juniper/Sagebrush

No birds were recorded along either transect through these vegetation types during April.

2.3.7.3.1.8 Pinyon-Juniper/Mixed Brush

No birds were recorded along either transect through these vegetation types during April.

2.3.7.3.1.9 Sagebrush

Only one species, the horned lark, was encountered along the two transects surveyed in sagebrush during April.

2.3.7.3.1.10 Greasewood/Sagebrush

Sixty-one birds representing four different species were recorded along two transects surveyed in the greasewood/sagebrush vegetation type in April. The gray-headed junco and the dark-eyed junco comprised over 75 percent of all species encountered.

2.3.7.3.1.11 Rabbitbrush

Only two species, the mountain bluebird and rufous-sided towhee, were encountered along the single rabbitbrush transect surveyed in April.

2.3.7.3.1.12 Riparian

One-hundred and four birds representing 16 species were recorded during the single Emlen transect through the riparian vegetation type in April. The mallard, mountain bluebird, red-winged blackbird, dark-eyed junco and gray-headed junco were observed most frequently along this transect.

2.3.7.3.1.13 Bottomland Meadow

Sixteen birds representing six species were recorded along the Emlen strip transect in the bottomland meadow vegetation type during April. Red-winged blackbirds were observed more frequently than any other avian species.

2.3.7.3.1.14 Summary for All Vegetation Types

The largest number of individual birds and the greatest number of different avian species were encountered in aspen, Douglas fir, south slope pinyon-juniper, greasewood/sagebrush, riparian and bottomland meadow vegetation types during April with the bottomland types exhibiting by far the greatest diversity. All other habitat types exhibited low avian species diversity and low numbers of birds during this sampling period. Table 2.3-20 depicts each Emlen strip census conducted in the 13 vegetation types sampled. Table 2.3-19 lists the species and numbers of birds observed per Emlen strip transect during April, 1975.

The mountain chickadee, mountain bluebird, red-winged blackbird, dark-eyed junco and gray-headed junco were observed in greater numbers than any other bird species during the early spring survey. Of these, the mountain bluebird and gray-headed junco appeared in a wider variety of vegetation types than did other bird species.

2.3.7.3.2 Upland Gamebirds

2.3.7.3.2.1 Sage Grouse

Two aerial surveys were conducted in April to locate and document sage grouse strutting grounds (leks) in the vicinity of Tract C-a. The first survey was conducted on April 25 over 84 Mesa, while the second covered an area west of Tract C-a. Both areas are known to be inhabited by sage grouse (Rogers, 1964). During the surveys, two strutting grounds were observed west of Tract C-a. The first lek was occupied by 27 sage grouse (20 males, 7 females) and the other was occupied by six grouse (4 males, 2 females). Both leks were in open areas surrounded by sparse sagebrush. No sage grouse strutting grounds were observed on 84 Mesa.

Mr. Ronald J. Krager, Wildlife Conservation Officer for the Colorado Division of Wildlife (personal communication, 1975), was consulted to obtain information on sage grouse utilization of 84 Mesa. Mr. Krager noted that prior to the placement of a water pipeline across 84 Mesa by the BLM, sage grouse utilized an area in section 19, T1S, R98W, for strutting. However, over the last few years the number of grouse using the lek had steadily decreased. Grouse have not been observed displaying in the area during recent surveys.

During the early spring survey period, four sage grouse were observed in sagebrush habitat on the eastern slopes of the Cathedral Bluffs. Three sage grouse were flushed from sagebrush habitat on 84 Mesa. None of these sage grouse were on leks.

2.3.7.3.2.2 Mourning Doves

Mourning doves had returned to the Piceance Basin by early April, and were first observed in the area of study on April 29 at 84 Mesa Ranch. Approximately 15 birds were flocked and foraging along the roadside and in the pasture areas around the ranch. Mourning doves were not observed elsewhere on the study area.

2.3.7.3.2.3 Waterfowl (Order Anseriformes)

The April sampling period demonstrated a substantial increase in waterfowl utilization of the Stake Springs Draw, Ryan Gulch and Black Sulfur Gulch. Two species, the mallard and green-winged teal, comprising 50 birds, were recorded at the Stake Springs impoundment during waterfowl counts on April 15 and 17, 1975. During other field activities in April, paired mallards were observed in Ryan Gulch and Black Sulfur Gulch, while mallards, green-winged teal and blue-winged teal, representing 54 birds were observed in the Stake Springs Draw impoundment.

2.3.7.3.3 Raptors

2.3.7.3.3.1 Aerial Surveys

Six raptor species were observed during raptor surveys flights conducted over the area of Tract C-a in spring, 1975. One Cooper's hawk, one red-tailed hawk, one marsh hawk, 10 golden eagles, one peregrine falcon and 48 common ravens were observed. Of all birds recorded during these surveys, the common raven was observed most frequently. Table 2.3-22 lists all raptors encountered during aerial surveys.

A peregrine falcon, classified as an endangered species (USDI, "Endangered Fauna", 1974) was observed as it flew beneath the aircraft and alighted in a pinyon pine snag at the mouth of Wet Swizer Gulch. The peregrine falcon is considered a rare resident breeder in northwest Colorado (Bailey and Niedrach, 1965; Davis, 1969). Mr. Gerald Craig, Chief Raptor Biologist for the Colorado Division of Wildlife (personal communication, 1974), noted that the species has nested and fledged young from eyries in northwest Colorado, and possibly nests in areas southeast of Tract C-a. Enderson and Craig's (1974) treatise on the status of the peregrine falcon in the Rocky Mountains demonstrates a population reduction of this species over the last few decades through declining reproduction. Although likely eyrie sites consisting of high, steep bluffs, appear to be restricted to areas southeast of the lease, if the peregrine falcon resides in the area of research, it should be documented during subsequent surveys.

Table 2.3-5. Raptor species encountered during aerial surveys, night transects and opportunistic sightings during early spring 1975 for RBOSP

Species	Total Number Observed: Aerial Surveys	Ground Investigations	Total
Cooper's hawk	1	5	6
Red-tailed hawk	1	19	20
Marsh hawk	1	6	7
Golden eagle	10	5	15
Peregrine falcon	1	0	1
American kestrel	0	17	17
Great horned owl	0	13	13
Common raven	48	39	87
TOTAL			166

2.3.7.3.3.2 Ground Surveys

Opportunistic ground sightings of raptors in the area of investigation during April, 1975, revealed the presence of seven different raptor species.

The Cooper's hawk was observed for the first time in the area of study during the April, 1975, sampling period. The red-tailed hawk was frequently observed while the rough-legged hawk, a common winter resident of the study area, was not observed during April as it had probably already migrated northward. Golden eagles, marsh hawks and American kestrels were also observed during the spring field period. The common raven was observed more frequently than any other raptor species and was seen throughout most vegetation types. Table 2.3-22 lists all raptors encountered during ground investigations.

Ground surveys to locate raptor nests were conducted between April 26-30, 1975 east of R99W. Forty-three nest sites were located. Of these, 20 nests were active, either containing eggs or chicks, or both. Red-tailed hawks were found occupying six nest sites; American kestrels four nest sites; great horned owls seven nest sites; and common ravens three nest sites. A red-tailed hawk nest containing three eggs, located on April 15, 1975, was re-examined the next day and found to be destroyed. Footprints in the area indicated that two persons had probably visited the nest, destroyed the eggs by tossing them against a pinyon pine, and then demolished the nest by scattering nesting material in a wide radius around the nesting tree. All active raptor nests and nest contents are listed in Table 2.3-23.

Night owl censuses were conducted twice during April, 1975 along a 48.4 km (30 mi) road transect. Only one species, the great horned owl was heard during these surveys. High winds and adverse weather conditions (snow and rain) throughout the April sampling period may have had an affect on owl activity in the region.

2.3.7.4 Summary and Conclusions

The April sampling period occurred near the starting point of the spring migration for most bird species. Many migrants such as the Cooper's hawk, mourning dove, Say's phoebe, western wood pewee, tree swallow, rough-winged swallow, barn swallow, yellow-rumped warbler, orange-crowned warbler, Virginia's warbler, green-tailed towhee and others, expected to reside in the area through the summer, were present in small numbers.

The field period was a composite of late winter and early spring sampling. Many areas exemplified the sparse and uneven bird distribution typical of temperate regions in winter, while other areas hosted a wide variety of bird species and numbers. Wintering species, such as the rough-legged hawk, northern shrike and tree

Table 2.3-23. Active raptor nests located on or near Tract C-a during April, 1975 for RBOSP [1/]

Nest Number	Species	Contents of Nest: Eggs	Contents of Nest: Chicks
1	Red-tailed hawk	3	0
2	Red-tailed hawk	2	0
3	Red-tailed hawk [2/]	3	0
4	Red-tailed hawk	2	0
5	Red-tailed hawk	3	0
6	Red-tailed hawk	2	0
7	American kestrel	1	0
8	American kestrel	1	0
9	American kestrel	2	0
10	American kestrel	1	0
11	Great horned owl	1	2
12	Great horned owl	2	0
13	Great horned owl	0	2
14	Great horned owl	0	3
15	Great horned owl	0	1
16	Great horned owl	0	2
17	Great horned owl	1	3
18	Common raven	0	3
19	Common raven	0	2
20	Common raven	0	2

[1/] Specific locations of all raptor nests discovered to date have been recorded.

[2/] Nest and contents destroyed.

sparrow had begun migrating northward. The tree swallow, rough-winged swallow, barn swallow, pinyon jay, mountain chickadee, mountain bluebird, yellow-rumped warbler, red-winged blackbird, dark-eyed junco, gray-headed junco, vesper sparrow, and chipping sparrow were the most frequently observed avian species during the early spring field sampling period. These 12 species accounted for over 65 percent of the birds observed during the early spring surveys.

The early spring field data indicate that most avian species encountered in the area of investigation were those expected to be present based on published information from northwestern Colorado and northeastern Utah (Bailey and Niedrach, 1965; Cooke, 1897, 1898, 1900, 1907; Davis, 1969; Hayward, 1967; Hendee, 1929; Rockwell, 1908; Twomey, 1942; Warren, 1908, 1909; and Wooding, 1973).

The following unexpected species were encountered during the April field period; all have been recorded previously in northwestern Colorado:

White-faced ibis - Two individuals were observed in bottomland areas where seepages or annual streams occur. The first, observed on April 17, was foraging along the stream bottom in Corral Gulch 1.0 km west of 84 Mesa Ranch. The second bird, observed on April 26, was observed near a spring seepage in Little Duck Creek. Both birds were photographed.

The white-faced ibis, occurring in very small numbers, is a regular migrant in both spring and fall to northwestern Colorado. Twomey (1942: 370) found this species to be a common spring migrant to the Uinta Mountain area of Utah. Davis (1969) considers the bird to be a rare visitor to the Western Slope, while Bailey and Niedrach (1965: 117) list white-faced ibis records only for Gunnison County, Colorado. Martin, et. al. (1974) observed individual flocks of 8-15 birds at ponds south of Craig, Colorado. ECI personnel observed several birds at ponds in the vicinity of Hayden, Colorado, in early April and a flock of 42 birds in the same area in early May, 1975.

Greater sandhill crane - On April 17, 1975, 30-35 greater sandhill cranes were observed overhead in the vicinity of Little and Big Duck Creeks. Cranes were observed in a sagebrush vegetation type during an aerial sage grouse lek survey over 84 Mesa on April 25, 1975. From April 25 through April 30, 1975, between 17 and 29 cranes were observed foraging and displaying in an area of sparse sagebrush on 84 Mesa. One flock of 13 cranes was observed near Little Duck Creek on April 26. These birds were foraging above the dry creek in dense sagebrush.

The greater sandhill crane has been designated as endangered by the State of Colorado Division of Wildlife (Colorado Wildlife Commission, 1974). Prior to realization that major breeding populations of greater sandhill cranes existed in southeastern Idaho, this species had been classed as "rare" by the U.S. Congress. This crane is not included in the most recent national listing of threatened, rare or endangered birds (U.S. Fish and Wildlife Service, 1973). The greater sandhill crane apparently once was abundant throughout North America but its nesting is now restricted to a region west of the Rocky Mountains in eastern Washington, southeastern Oregon, northeastern California, parts of Nevada, northern Utah, southeastern Idaho, southwestern Montana, western Wyoming and northwestern Colorado (Bailey and Niedrach, 1965; Buller, 1967; Driewien and Bizeau, 1974; Littlefield, 1968; Martin et al., 1974; Sugden, 1938; and Walkinshaw, 1949).

In northwestern Colorado, Rockwell (1908) indicated that near the turn of the century the greater sandhill crane nested in portions of Montrose and Mesa Counties. Bailey and Niedrach (1965) suggested that the greater sandhill crane's breeding range is confined to Hahn's Peak and California Peak areas north of Hayden in Routt County. Martin et al. (1974) found cranes occupying active nests in Big Bottom south of Craig in Moffat County and also reported their presence in fields along the Yampa River.

As with the fall migration period, any census of avian species during a transition stage must be analyzed with caution. During these transitory periods avian species migrating in flocks tend to move along certain topographic features such as drainages, river valleys, canyons, etc. Consequently, species comprising these flocks generally exhibit a less specific attachment to favored habitat than they exhibit during the breeding season. Similarly, the uneven distributional pattern of avian species in large areas of favored habitat can be partially explained by inclement weather and the tendency for species to form large intermixed flocks during migration (Lack, 1960; Graber and Graber, 1963; Graber, 1968; and Brewer, 1972).

Emlen strip censuses through 13 different vegetation types in 20 separate locations documented the presence of 27 avian species. Qualitative count surveys along with all other field censuses conducted in early spring accounted for an additional 34 avian species. Waterfowl surveys recorded two species utilizing the Stake Springs impoundment. Night owl transects recorded one owl species. Aerial sage grouse lek surveys resulted in discovery of two strutting grounds west of Tract C-a.

Of 43 nest sites located during the raptor nesting survey, 20 were found active. During April, 1975, 61 bird species were tallied. A total of 86 avian species have been recorded in the area of research since the initiation of field sampling in October, 1974.

2.3.7.5 AVIFAUNA RAW DATA

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83.C.4.1.2.1-4

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4/16/75 Observer: VAN HORN Site: Bottomland Meadow

Times: 0720-0815 Temp.: 10°C Wind: 5-10 Sky: 30% O.C.

Project: 83/05 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over	
RWBB			II	𝍸	I	I		9
W.Wren			I					1
Mtn Blue			I					1
W.Mead.	–			I				1
C.Snipe			I					1
Am Rob		I			II			3

– 16

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83.C.9.1.2.2.-4

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-15-75 Observer: VANHORN Site: [illegible]

Times: 1555-1650 Temp.: 19°C Wind: 5-10 Sky: O.C.

Project: 83/05 Other Comments:

NO BIRDS OBSERVED

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4/15/75 Observer: VAN HORN Site: Boot Hill Sage

Times: 0730 - 0835 Temp.: 7°C Wind: 0 Sky: OV. CAST

Project: 83/05 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over
HORNED L.				III			
COOPER'S HAWK - FLUSHED FROM REVEGETATION SITE							
MARSH HAWK - OVERHEAD AFTER TRANSECT							

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-30-75 Observer: VonHorn Site: [illegible]

Times: 1510-1630 Temp.: 12°C Wind: 5-10 Sky: 80% OC

Project: 83 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over	T
Scrub				||	|			3
Pinyon			|||	|	||||	卌 /		[illegible]

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73.C.9.1.2.5-3

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-16-75 Observer: VAN HORN Site. Boxelder Bottom

Times: 1735 - 1830 Temp.: 12°C Wind: 5-10 Sky: 50% OC

Project: 83|05 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over
JUCO			ll				2
Mtn Blue			ll	llll	l		4

1°

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-15-75 Observer: VanHorn Site: Gasline Pit

Times: 1745- 1820 Temp.: 16°C Wind: 5-10 Sky: 100% OC

Project: 8305 Other Comments:

— NO BIRDS —

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over

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83.C.9.1.2.7-4

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-16-75 Observer: VAN HORN Site: [illegible]

Times: 0925-1010 Temp.: 19°C Wind: 5-10 Sky: Thin O.C.

Project: 83-05 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over	
Mtn. Blue			I	II				3
Rufous. To.					I			1

4

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-30-75 Observer: Van Horn Site: Upland Meadow

Times: 1700 - 1815 Temp.: 12°C Wind: 5-10 Sky: 50% OC

Project: 83 Other Comments:

No species

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over

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83.C.9.1 2.10-3

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-16-75 Observer: Van Horn Site: Tower P3/[illegible]

Times: 1535-1615 Temp.: 13°C Wind: 5-10 Sky: 30% OC

Project: 83/05 Other Comments:

"NOTHING"

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	[illegible] Over

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-16-75 Observer: VAN HORN Site: Tree [illegible]-Brush

Times: 1817-1950 Temp.: 11°C Wind: 5-10 Sky: 50% OC

Project: 83|05 Other Comments:

— NO BIRDS —

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over

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83.C.9.1.2.12-4

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-17-75 Observer: Van Horn Site: Horse P-J / Sage

Times: 1515-1605 Temp.: 3°C Wind: 5-10 W Sky: 100% OC

Project: 83|05 Other Comments:

-NO BIRDS-

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-17-75 Observer: Van Horn Site: Ridgetop Meadow

Times: 1215-1320 Temp.: -1°C Wind: 5-10 W Sky: 100% OC

Project: 83/05 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over		
H. Lark					1			1	1

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-16-75 Observer: VH Site: Bressmaa's-Sage A [illegible]

Times: 0825-0915 Temp.: 13°C Wind: 5-10 Sky: Thin O.C.

Project: 83-05 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over	T
Sage T.				II	I			3
Mtn Blue		I	II	I				4
DE Junco		卌 II	II	I	II			12
DE Junco		II	卌 I	II				10
Gray Head	II	IIII	卌 IIII	卌 II				22

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-16-75 Observer: VANHORN Site: South Pt/B

Times: 1015-1105 Temp.: 14°C Wind: 5-10 w/10 mph gust Sky: Thin O.C.

Project: 83-05 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over	T
Pinyon J.				|||||||	|||	||		12
RED-TAILED HAWK, FLEW OVER HEAD							1	
COMMON RAVEN, SAME							1	1
SCRUB J.				1				1

ECI (6)

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83.C.9.1.2.16-4

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-16-75 Observer: VanHorn Site: Hunting Club 183-C

Time: 1630-1720 Temp.: 13°C Wind: 5-10 Sky: 30% OC

Project: 83/05 Other Comments:

NO BIRDS — !

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over

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83.C.9.1.2.17-3

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4/15/75 Observer: VAN HORN Site: [illegible]

Times: 1040- 1120 Temp.: 10°C Wind: 5-10 Sky: O.V. CAST

Project: 83/05 Other Comments: — NO BIRDS —

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over

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83.C.9.1.2.18-3

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-17-75 Observer: Van Horn Site: Mtn Brush B

Times: 0730-0820 Temp.: -4°C Wind: 5-15 W Sky: 100% OC

Project: 83/05 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over	
JUCA		II	ⅢⅠ	II			10	12
Mtn Blue				II			2	

83.0.9.1.2.19 -3

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4-17-75 Observer: Van Horn Site: Douglas Fir

Times: 0900-1000 Temp.: -6°C Wind: 5-10 W Sky: 100% OC

Project: 83/05 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over	T
RB Nut			ll	l				3
Mtn Chick			llll l	l				7
Steller's				l				1
BC Chick			lll	l				4

ECI
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FIELD DATA SHEET - EMLEN STRIP CENSUS 83.C.9.1.2.20-3

Date: 4-17-75 Observer: VanHorn Site: Aspen

Times: 1048-1130 Temp.: -1°C Wind: 5-10 NW Sky: 100% OC

Project: 83|05 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over
Flicker				|			1
Mtn Chick			卌 ||	卌 |	|		14
Downy					|		1
BC Chick		|	||				3
JUCA			|||	||||	卌		12
JU-(ORE)			|	||			3.

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83.C.9.1.2.21-3

FIELD DATA SHEET - EMLEN STRIP CENSUS

Date: 4/15/75 Observer: Van Hoen Site: Riparian

Times: 0915-1025 Temp.: 9°C Wind: 5-10 Sky: OV. Cast

Project: 83/05 Other Comments:

Number Recorded Per Strip

Species	0-10'	10-25'	25-50'	50-100'	100-200'	200-400'	Fly Over	
PIPI					I	I		3
COCO						IIII		4
APCO					II		Scrub Jay	2
TUMI		I	II	III	I			7
SICU		III	卌	II	I	II		13
ANSP			II	I				3
STVU					III			3
STNE					II			2
AGPH		I	卌	IIII	II	I		11
MEME					I			1
JUCA		卌 卌 II	卌 I	III	III	I		5
JUHO		卌 I		III	I			[illegible]
COSE					I			1
CHVO				IIII				1
Mallard & Green winged Teal Flushed AFTER WATERFOWL COUNT								
ANPL					卌 卌 III			13
ANCA					I			1

WATERFOWL COUNT RESULTS - FIELD DATA FORM

Project 83/05 Date 4/15/75 Observer VAN HORN

Pond SNAKE SPRINGS Time 0705 Wind 0-5 Temp 6°C

Percent Sky Overcast 100 Comments —

Species	Number Observed M	F	Juv	Notes
MALLARD	4	5		AT HEAD OF POND WHERE CREEK MERGES

WATERFOWL COUNT RESULTS - FIELD DATA FORM

(2)

Project 83/05 Date 4/15/75 Observer VAN HORN

Pond STAKE SPRINGS Time 1025 Wind 5-10 Temp 13°C

Percent Sky Overcast 85 Comments —

Species	Number Observed M	F	Juv	Notes
MALLARD	7	6		
GREEN-WINGED TEAL		1		

WATERFOWL COUNT RESULTS - FIELD DATA FORM

Project 83/05 Date 4/15/75 Observer VAN HORN

Pond STAKE SPRINGS Time 1730 Wind 15-20 Temp 16°C

Percent Sky Overcast 100 Comments GUSTING TO 30

Species	Number Observed M	F	Juv	Notes
MALLARD	3	6		CLOSE TO SHORE AMONGST REEDS

WATERFOWL COUNT RESULTS - FIELD DATA FORM

Project 83 Date 4-17-75 Observer VAN HORN

Pond STARE SPRINGS Time 0610 Wind 5-10 FM NW Temp -3°C

Percent Sky Overcast 100 Comments —

Species	Number Observed M	F	Juv	Notes
MALLARD	2	3		ON LEEWARD END OF POND

JB

WATERFOWL COUNT RESULTS - FIELD DATA FORM

Project 83 Date 4-17-75 Observer Van Horn

Pond STAKE SPRINGS Time 1440 Wind 10-15 FM W Temp 9°C

Percent Sky Overcast 80% Comments ———

Species	Number Observed M	F	Juv	Notes
MALLARD	3	3		

73 C 9.3.2-7

WATERFOWL COUNT RESULTS - FIELD DATA FORM

Project 83 Date 4-1[?]-75 Observer VAN HORN

Pond STAKE SPRINGS Time 1630 Wind 10-15 FMW Temp 8°C

Percent Sky Overcast 80 Comments

Species	Number Observed M	F	Juv	Notes
MOLLARD	4	3		

ECI

RAPTOR

AVIAN NESTING RECORD

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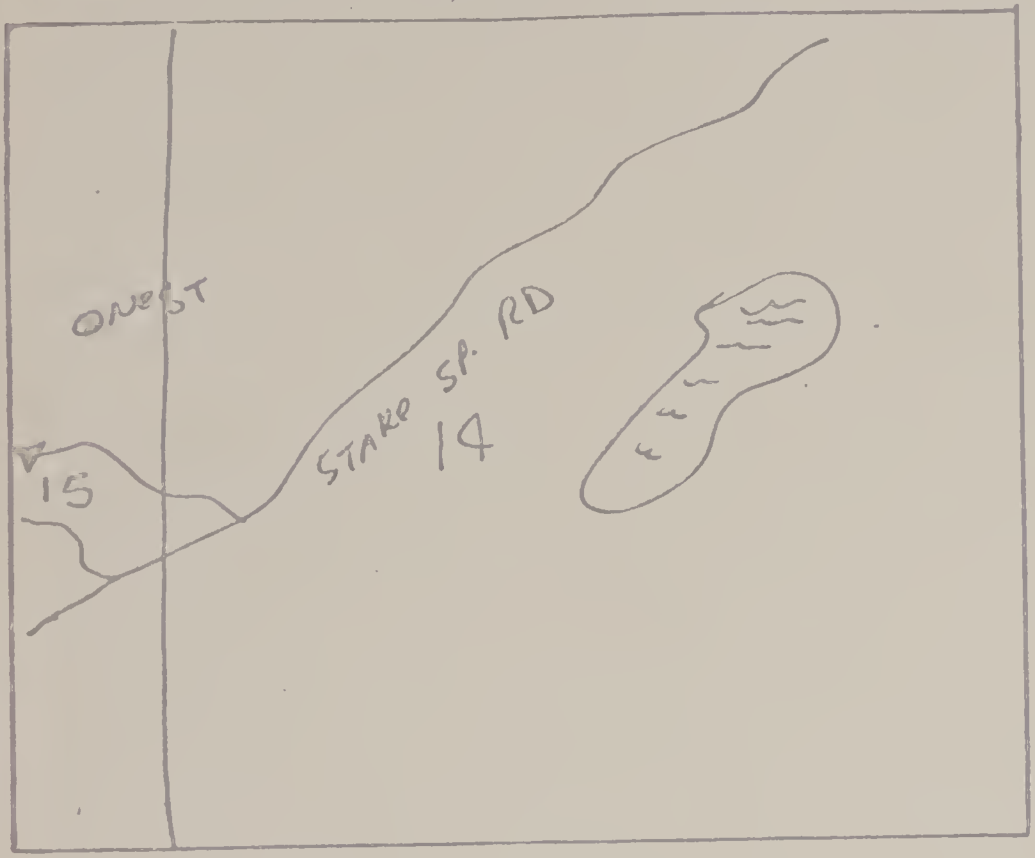
83.C.9.4.2.2.1

Species Red-tailed hawk Site NE 1/4 Sec 15 T2S R99W Nest No. one

Date 4-30-75 Observer D. Van Horn Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

Nest construction of this year.
east side of pinyon pine
west facing slope

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
[illegible]30	3			one egg fresh (2-4 days ?) others stained

Summary: Clutch size ____ Completed? ____ Date Incubation Started ____

Young Hatched ____ Hatching Date ____

Young Fledged ____ Fledging Date ____

Nest Destroyed? ____ Date ____ Cause ____

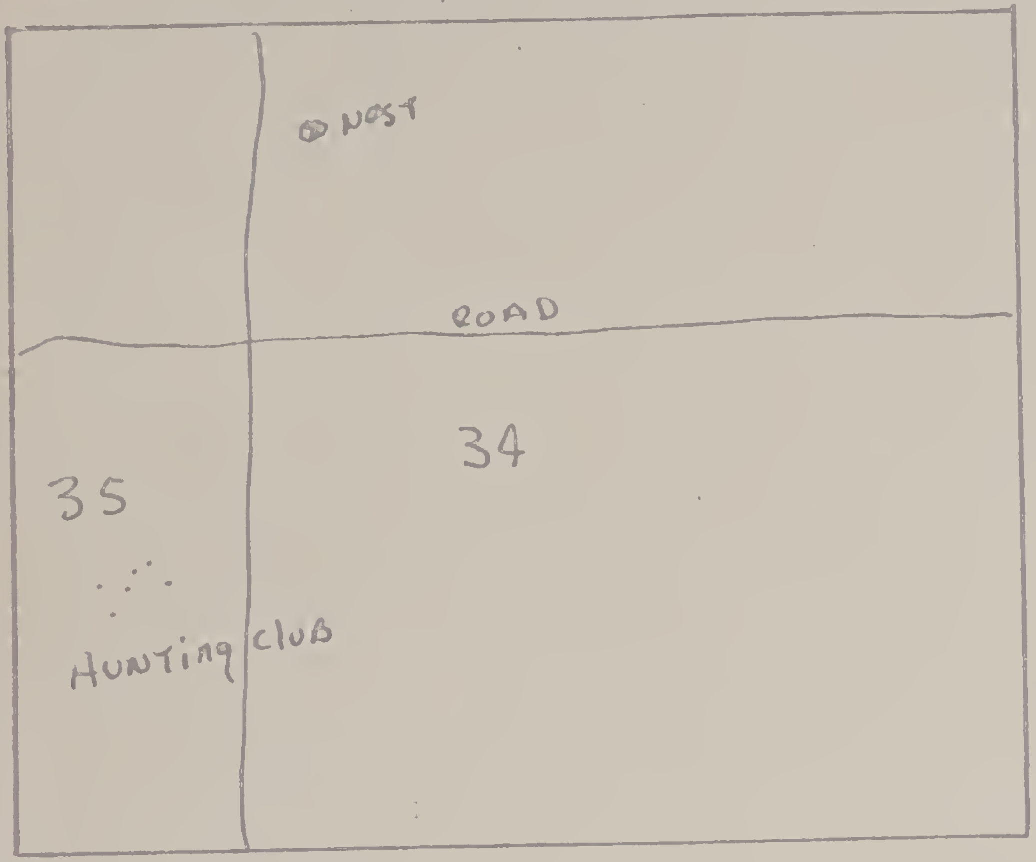
dB

AVIAN NESTING RECORD

Species Red-tailed hawk Site NW1/4 Sec 34 T1S R99W Nest No. TWO

Date 4-30-75 Observer D. VanHoren Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

New Nest.
North side of pinyon pine
South facing slope

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
[illegible]30	2			

Summary: Clutch size ______ Completed? ______ Date Incubation Started ______

Young Hatched ______ Hatching Date ______

Young Fledged ______ Fledging Date ______

Nest Destroyed? ______ Date ______ Cause ______

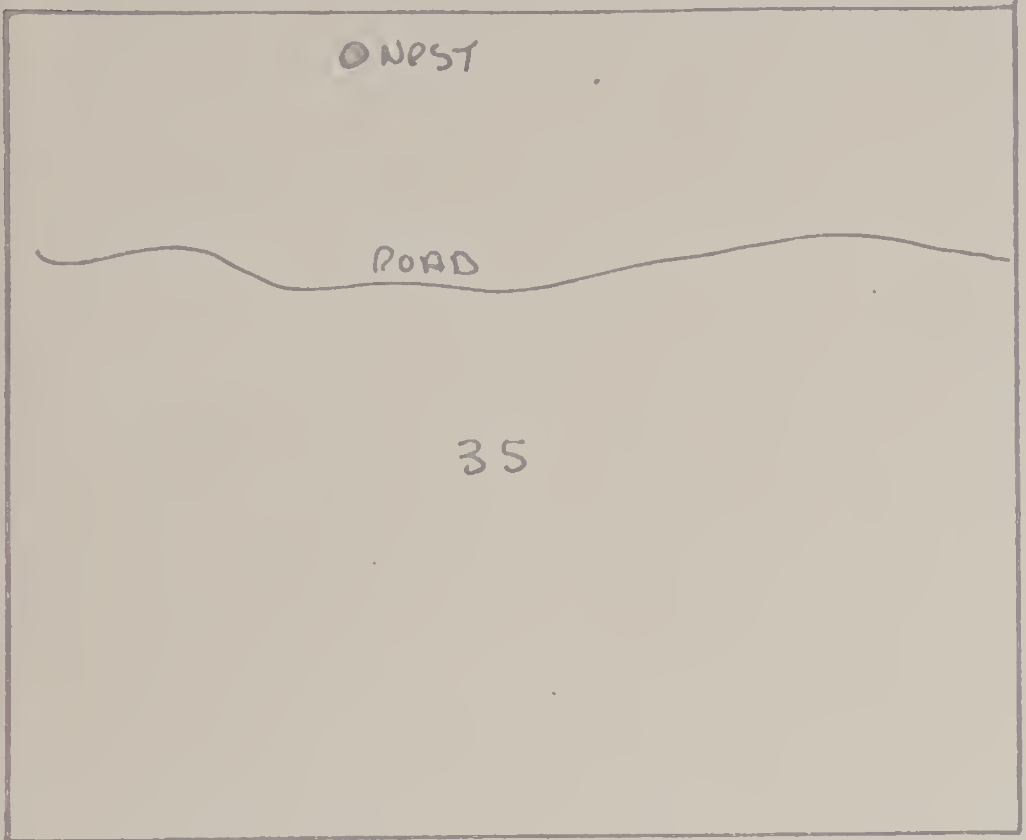
ecology consultants, inc.
83.C.9.4.2.2.1-3

AVIAN NESTING RECORD

Species: Red-tailed hawk Site: NW¼ Sec 35 T1S R99W Nest No.: three

Date: 4-15-75 Observer: D. Van Horn Project: 83

Nest Location



Nest Type: ______

Substrate: ______

Rim height (cm): ______

Comments:

New Construction.
North side of Pinyon pine
East facing slope.
w/in one mile of Nest #2.

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
4-15	3			ALL EGGS STAINED
4-16				NEST FOUND DESTROYED - HUMANS

Summary: Clutch size ______ Completed? ______ Date Incubation Started ______

Young Hatched ______ Hatching Date ______

Young Fledged ______ Fledging Date ______

Nest Destroyed? Yes Date 4-16-75 Cause Human

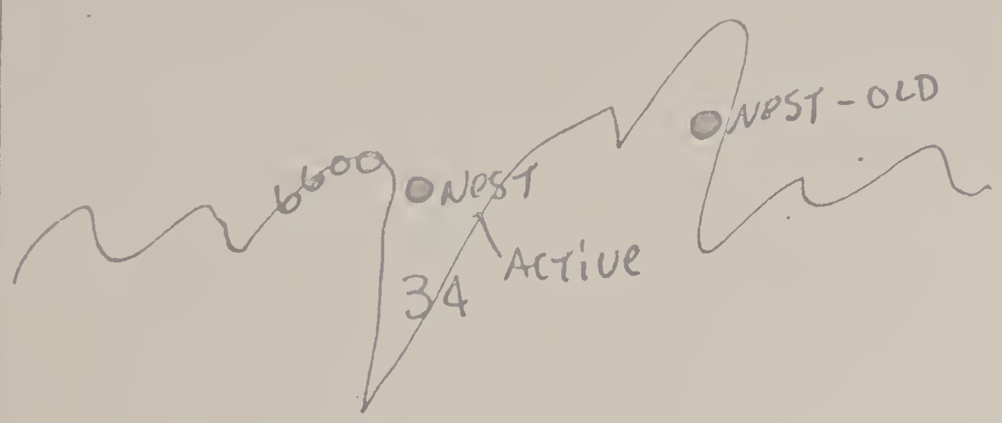
ecology consultants, inc.
83.C.9.4.2.2.1-4

AVIAN NESTING RECORD

Species Red-tailed hawk   Site NW¼ Sec 34 T1S R98W   Nest No. FOUR

Date 4-26-75   Observer D. Van Horn   Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

Nest located in pinyon pine, construction of nest several years ago.

New nest material – greenery
EAST SIDE OF TREE
WESTRLY FACING SLOPE

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
[illegible]	2			BOTH STAINED heavily

Summary: Clutch size ______ Completed? ______ Date Incubation Started ______

Young Hatched ______ Hatching Date ______

Young Fledged ______ Fledging Date ______

Nest Destroyed? ______ Date ______ Cause ______

[illegible] REPORT
JB

ecology consultants, inc.

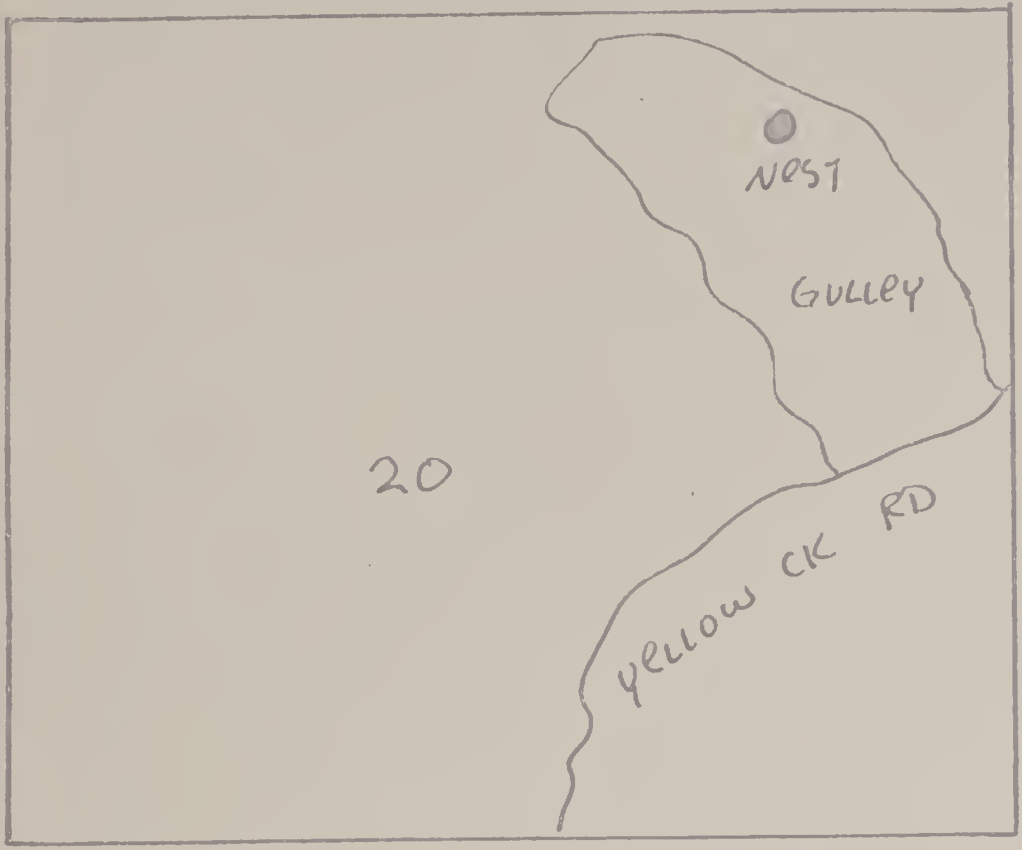
83.C.9.4.2.2.1-5

AVIAN NESTING RECORD

Species Red-tailed hawk Site NE 1/4 Sec 20 T1S R98W Nest No. FIVE

Date 4-29-75 Observer D. VanHorn Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

LOCATEDON SANDSTONE BLUFF.
OLD NEST.
WEST FACING slope

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
29	3			ALL STAINED

Summary: Clutch size ____ Completed? ____ Date Incubation Started ____

Young Hatched ____ Hatching Date ____

Young Fledged ____ Fledging Date ____

Nest Destroyed? ____ Date ____ Cause ____

REPORT JB

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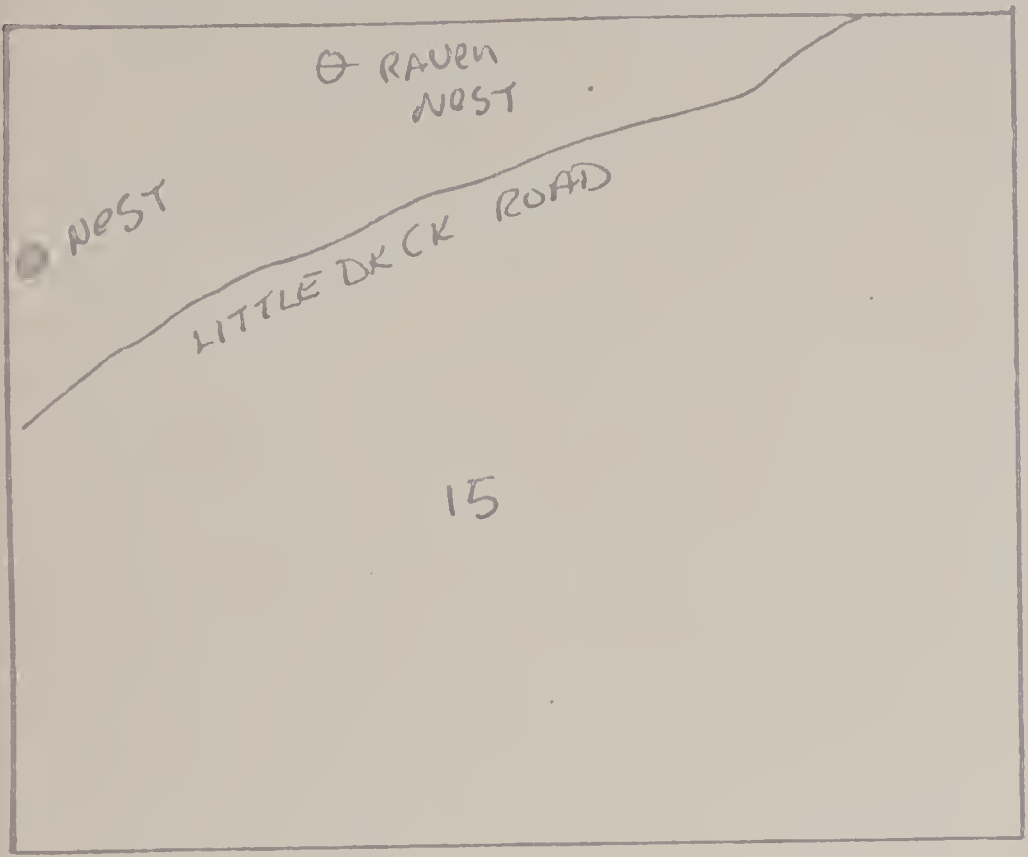
83.C.9.4.2.2.1-6

AVIAN NESTING RECORD

Species Red-tailed hawk Site NW1/4 Sec 15 T1S R99W Nest No. SIX

Date 4-29-75 Observer D. Ven Horn Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

LOCATED ON SANDSTONE EROSION AREA
10' ABOVE GROUND
NEW NEST.
SOUTH-WEST SLOPE

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
29	2			ONE STAINED, ONE NOT

Summary: Clutch size Completed? Date Incubation Started

Young Hatched Hatching Date

Young Fledged Fledging Date

Nest Destroyed? Date Cause

REPORT
JB

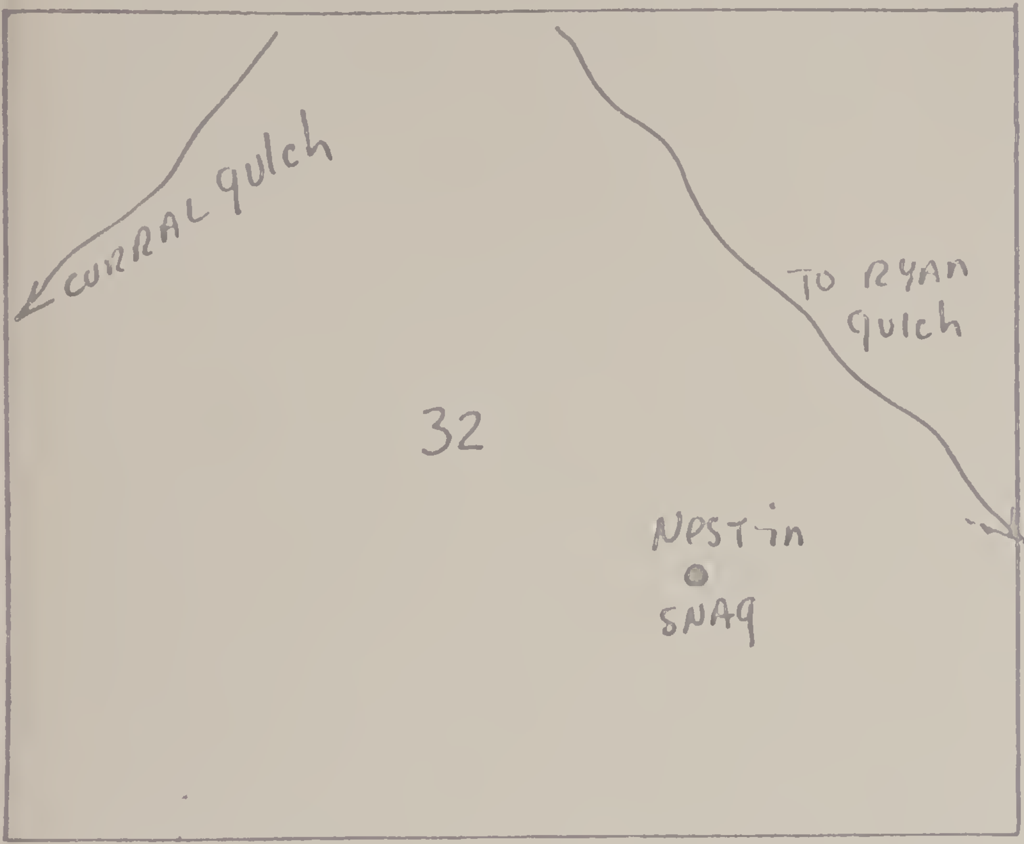
ecology consultants, inc.
83.C.9.4.2.2.1-7

AVIAN NESTING RECORD

Species American Kestrel Site SE1/4 Sec 32 T1S R98W Nest No. Seven

Date 4-17-75 Observer D. Van Horn Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

Pinyon pine snag
in cavity
8-10 inches deep.
west slope
nest facing east

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
4-17	1			EGG POSSIBLY laid PREVIOUS DAY

Summary: Clutch size ______ Completed? ______ Date Incubation Started 4-16

Young Hatched ______ Hatching Date ______

Young Fledged ______ Fledging Date ______

Nest Destroyed? ______ Date ______ Cause ______

RBCSP ... REPORT
DB

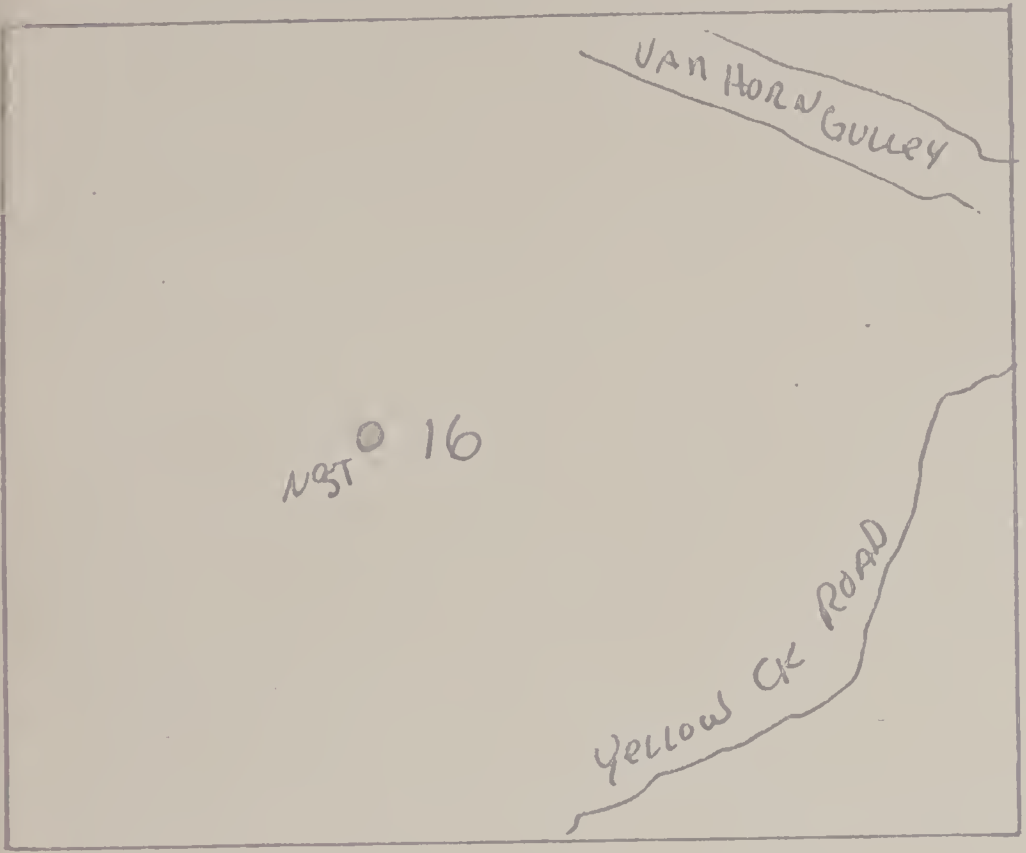
AVIAN NESTING RECORD

ecology consultants, inc.
83.C.9.4.2.2.1-8

Species American Kestrel   Site SW 1/4 Sec16 T1S R98W   Nest No. EIGHT

Date 4-29-75   Observer D. Van Horn   Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

LOCATED in SNAG (UNKn ID)
12 inch cavity
SOUTH-WEST Slope
Nest facing SOUTH

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
4-29	1			FRESH, NOT STAINED

Summary: Clutch size   Completed?   Date Incubation Started 4-27?

Young Hatched   Hatching Date

Young Fledged   Fledging Date

Nest Destroyed?   Date   Cause

[illegible] REPORT
JB

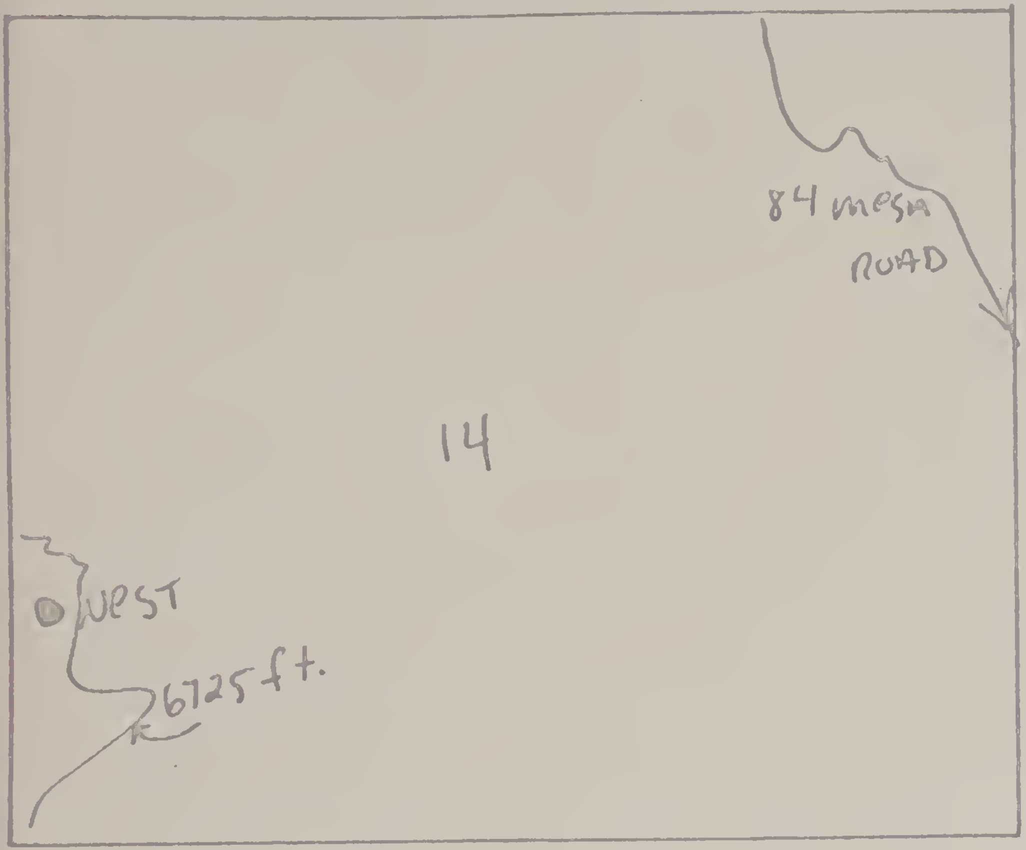
ecology consultants, inc.
83.C.9.4.2.2.1-9

AVIAN NESTING RECORD

Species American Kestrel Site SW 1/4 Sec14 T1S R99W Nest No. N1DG

Date 4-15-75 Observer D. Van Horn Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

SNAG TREE - Pinyon pine
NO CAVITY - NEST SITUATED in HOLLOW OF LIMB - (i.e. where limb broke off).

NORTH WEST SLOPE -
NEST facing NORTH WEST

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
4-15	2			BOTH somewhat stained

Summary: Clutch size ____ Completed? ____ Date Incubation Started ____

Young Hatched ____ Hatching Date ____

Young Fledged ____ Fledging Date ____

Nest Destroyed? ____ Date ____ Cause ____

PROGRESS REPORT
DB

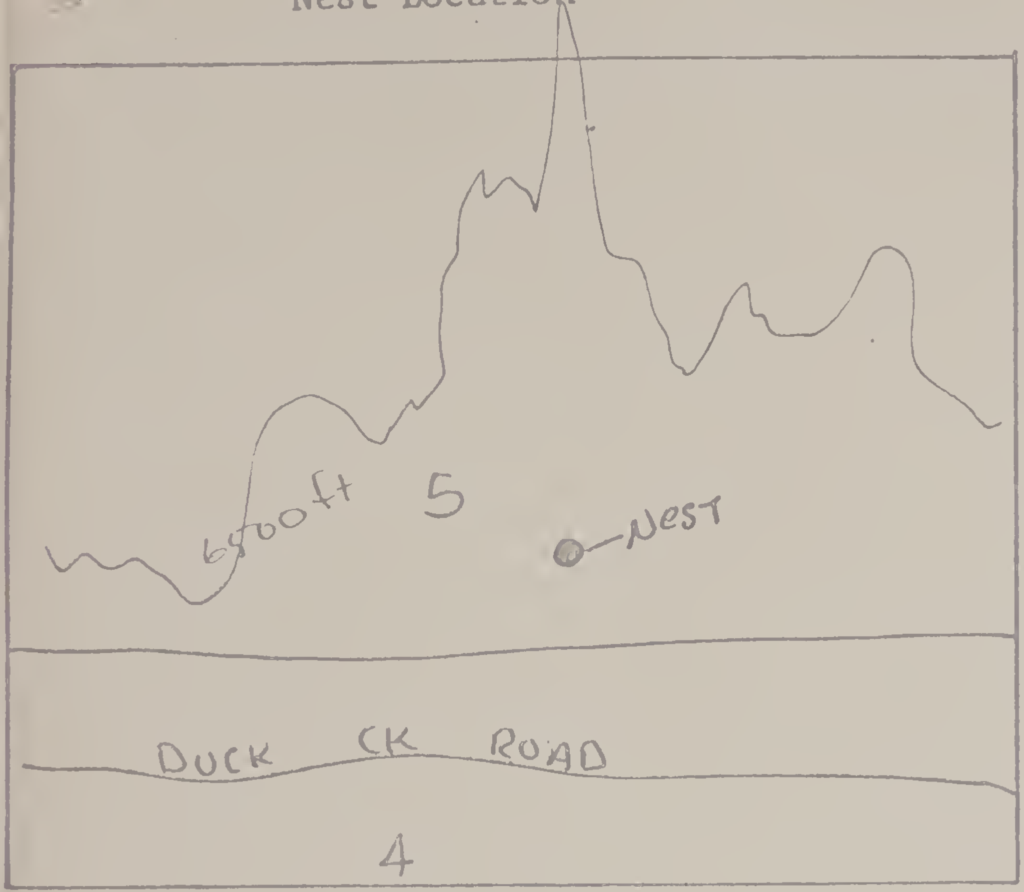
ecology consultants, inc.
83.C.9.4.2.2.1-10

AVIAN NESTING RECORD

Species American Kestrel   Site SE1/4 Sec 5 T1S R98W   Nest No. TEN

Date 4-29-75   Observer D. Van Horn   Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:
Cavity of P. pine snag.
Deep cavity, over 12"
Barely see one ~~egg~~ egg.
East slope
Nest facing south

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
4-29	1			Unable to determine if other eggs present. Situated in a deep cavity, staining of eggs -(?)

Summary: Clutch size ____ Completed? ____ Date Incubation Started ____

Young Hatched ____ Hatching Date ____

Young Fledged ____ Fledging Date ____

Nest Destroyed? ____ Date ____ Cause ____

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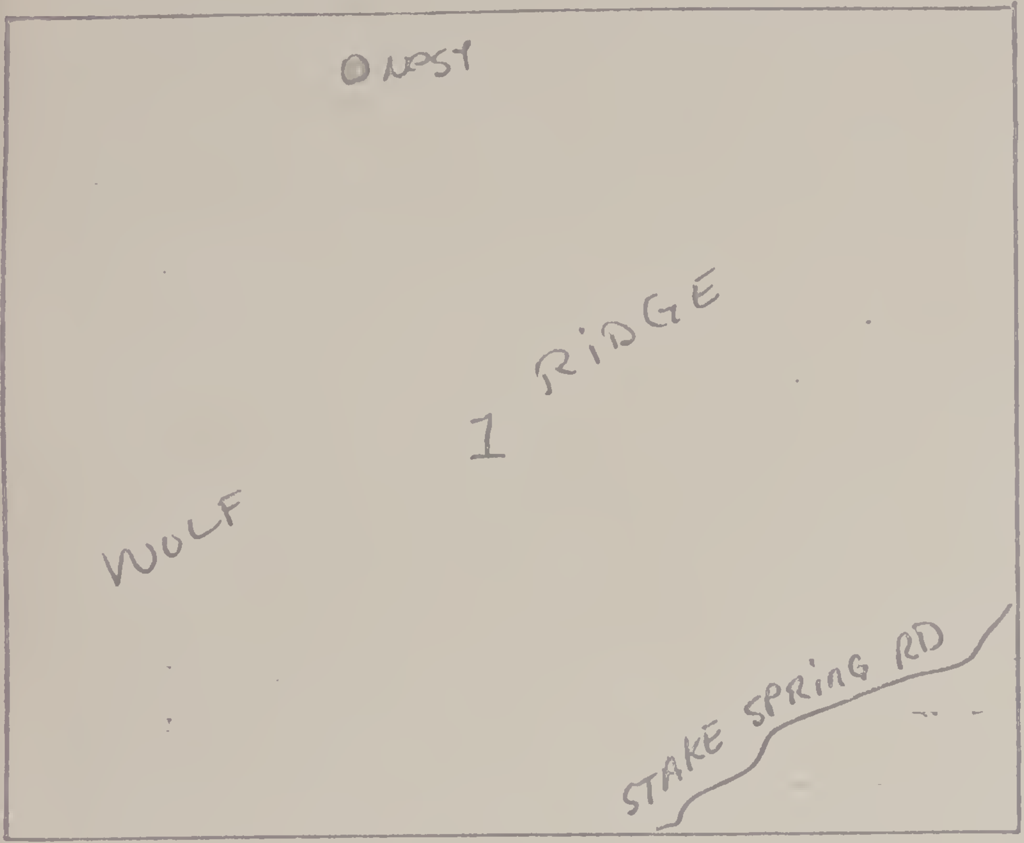
83.C.9.4.2.2.1-11

AVIAN NESTING RECORD

Species: Great horned owl — Site: NW 1/4 Sec 1 T2S R99W — Nest No.: 11

Date: 4-30-75 — Observer: D. Van Horn — Project: 83

Nest Location



← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Nest Type:

Substrate:

Rim height (cm):

Comments:
Pinyon pine
old nest of other raptor
NORTH WEST SLOPE

Date	Eggs	Nestlings	Age	Comments
30	1	2	2/4 days.	owlets age based on size, and compar… presence of egg tooth. unable to lift bodies.

Summary: Clutch size ____ Completed? ____ Date Incubation Started ____

Young Hatched ____ Hatching Date ____

Young Fledged ____ Fledging Date ____

Nest Destroyed? ____ Date ____ Cause ____

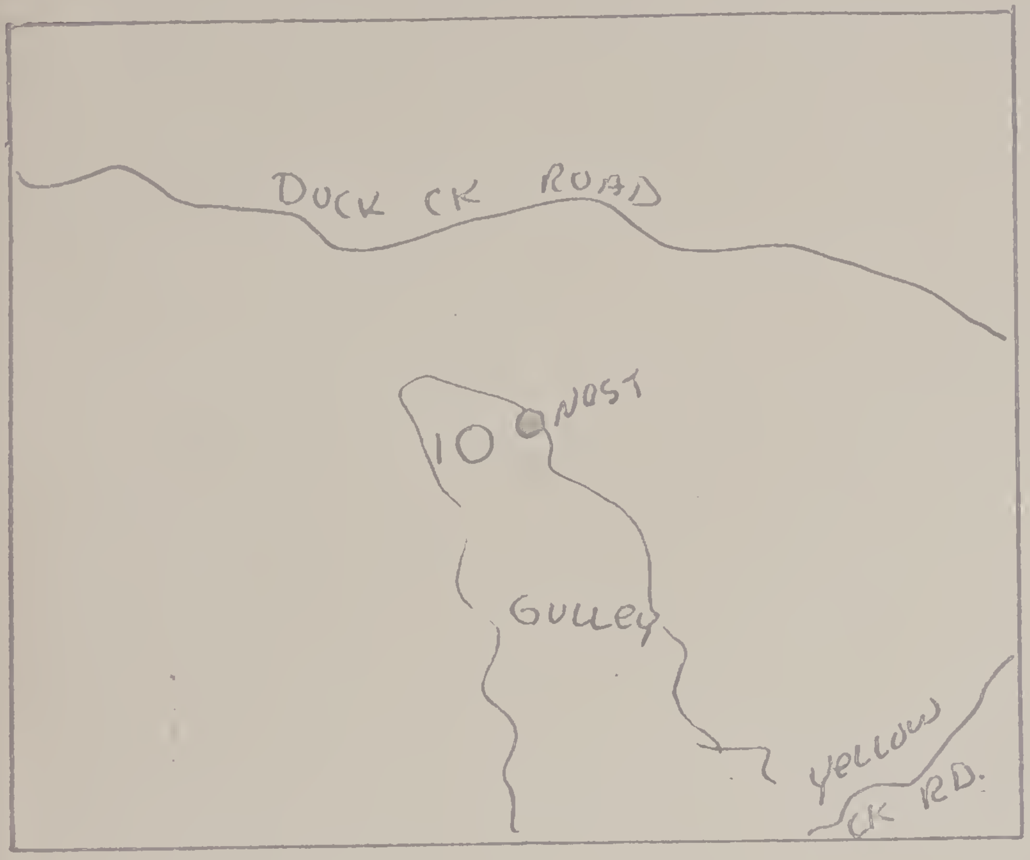
ecology consultants, inc.
83.C.9.4.2.2.1-12

AVIAN NESTING RECORD

Species Great horned owl Site SW 1/4 Sec 10 T1S R98W Nest No. 12

Date 4-29-75 Observer D. Van Horn Project 83

Nest Location



← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Nest Type

Substrate

Rim height (cm)

Comments:

SUBSTRate of a few twigs.
under rock ledge
deep erosion area
south facing nest

Date	Eggs	Nestlings	Age	Comments
4-29	2			BOTH very Stained

Summary: Clutch size ______ Completed? ______ Date Incubation Started ______

Young Hatched ______ Hatching Date ______

Young Fledged ______ Fledging Date ______

Nest Destroyed? ______ Date ______ Cause ______

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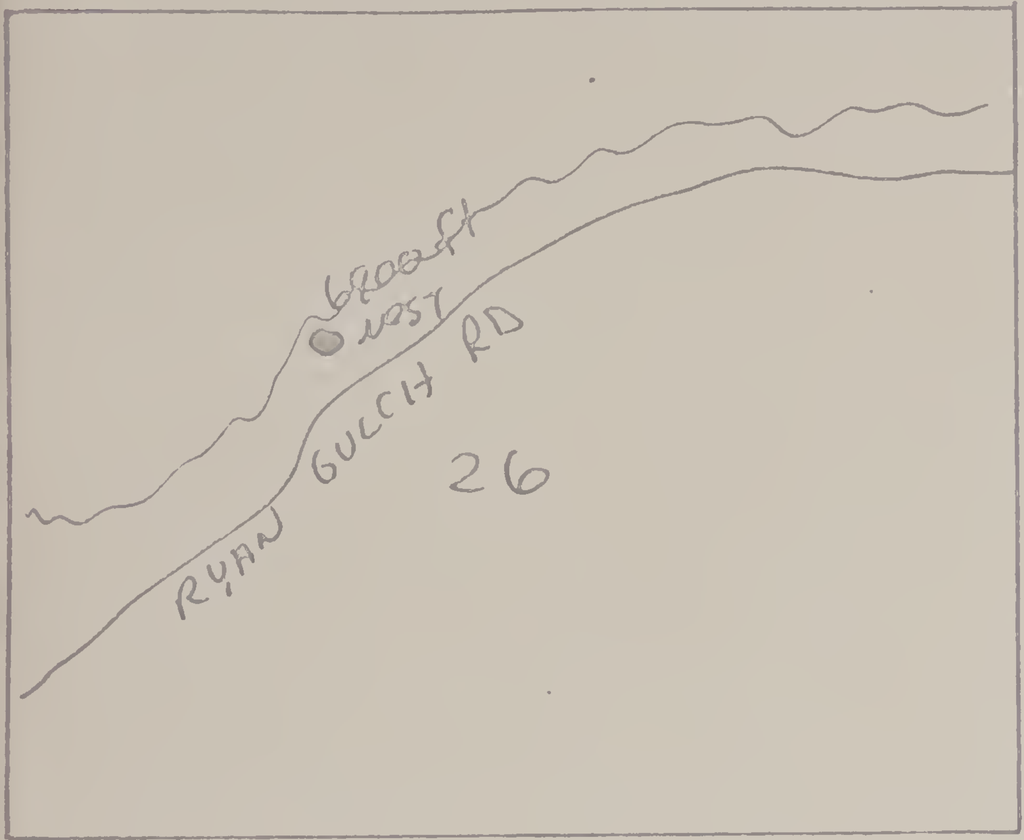
83.C.9.4.2.2.1-13

AVIAN NESTING RECORD

Species Great horned owl Site NW 1/4 Sec 26 T2S R99W Nest No. 13

Date 4-28-75 Observer D. Van Horn Project 83

Nest Location



Nest Type

Substrate None

Rim height (cm)

Comments:

on erosion level
60 feet high
Bare ground of ledge
South-east facing nest
Rabbit (Lepus) in nest

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
4-28		2	6-8 days.	oldest w/ eye flutter. left eye partially open.

Summary: Clutch size ______ Completed? ______ Date Incubation Started ______

Young Hatched ______ Hatching Date ______

Young Fledged ______ Fledging Date ______

Nest Destroyed? ______ Date ______ Cause ______

RECSP PROGRESS REPO...
DB

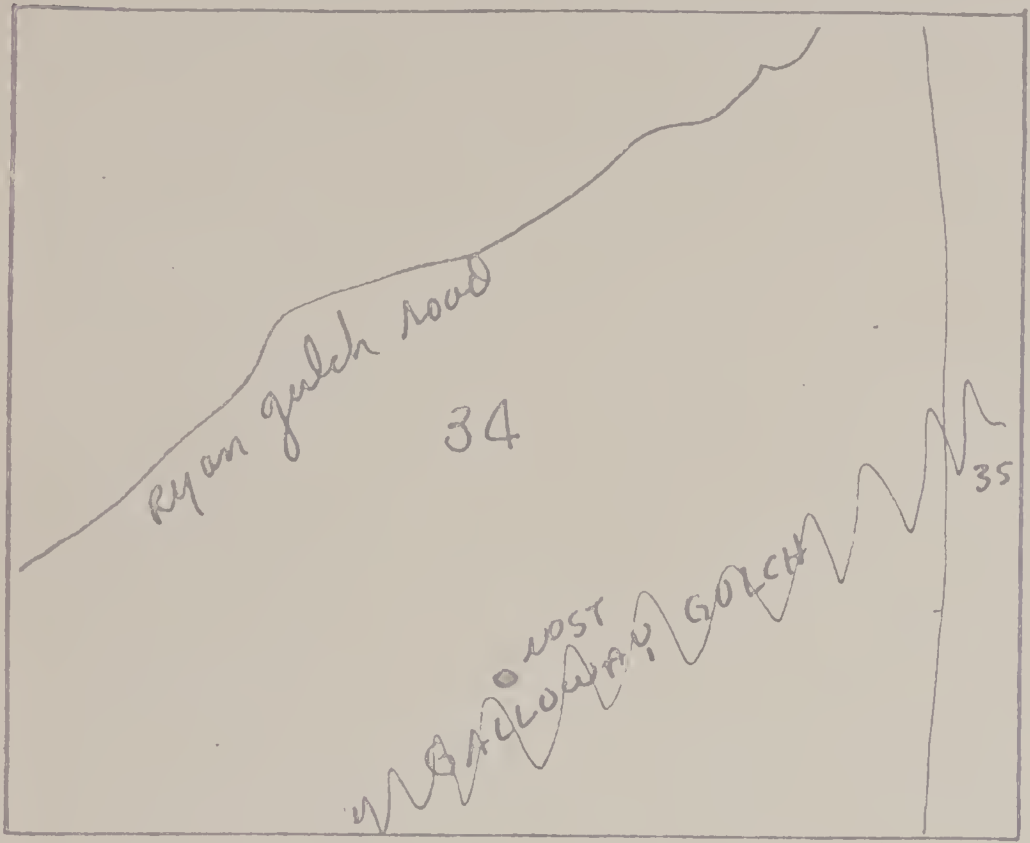
ecology consultants, inc
83.C.9.4.2.2.1-1

AVIAN NESTING RECORD

Species Great horned owl Site SE 1/4 Sec 34 T2S R99W Nest No. 14

Date 4-28-75 Observer D. Van Horn Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

Few twigs on ledge
60-70' high (from vally floor
erosion level

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
28		3	6-10 days.	oldest eyes open, able to lift he

Summary: Clutch size ______ Completed? ______ Date Incubation Started ______

Young Hatched ______ Hatching Date ______

Young Fledged ______ Fledging Date ______

Nest Destroyed? ______ Date ______ Cause ______

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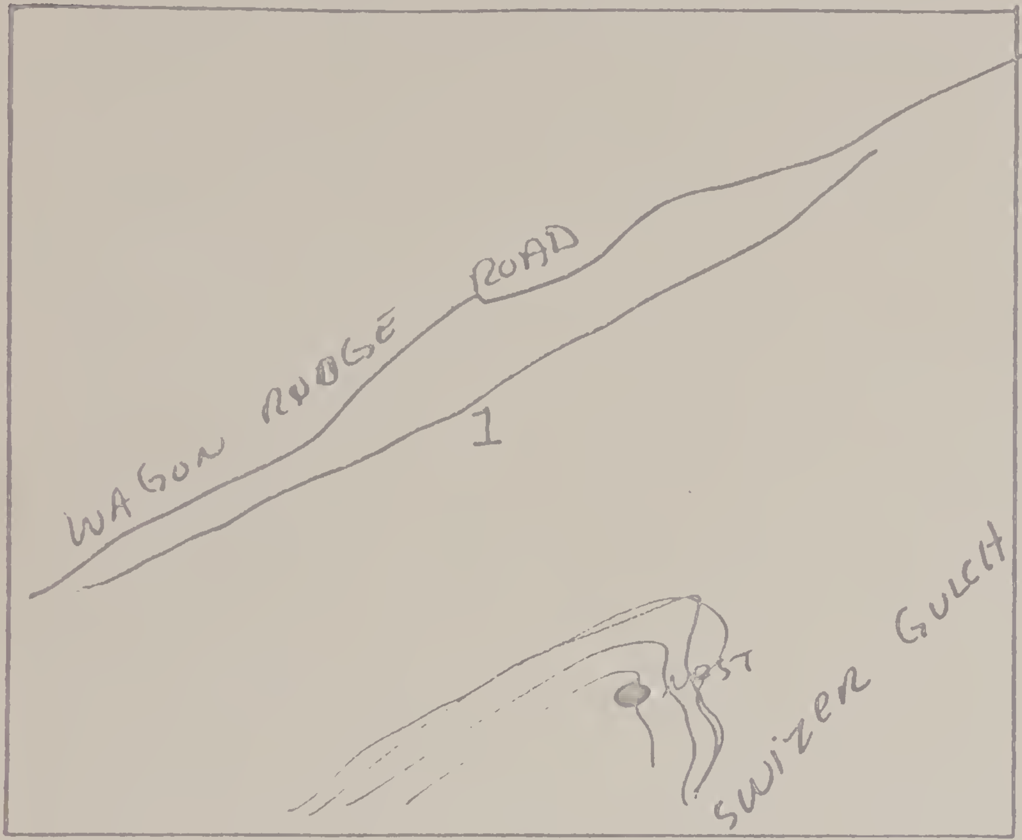
83.C.9.4.2.2.1-15

AVIAN NESTING RECORD

Species Great horned owl   Site SE1/4 Sec 1 T3S R99W   Nest No. 15

Date 4-27-75   Observer D. Van Horn   Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

Pinyon-pine - older nest
NORTH facing slope.
Nest very exposed.
egg shell fragments in vicinity indicate more than one owlet.

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
-27		1	6-8 days	

Summary: Clutch size ______ Completed? ______ Date Incubation Started ______

Young Hatched ______ Hatching Date ______

Young Fledged ______ Fledging Date ______

Nest Destroyed? ______ Date ______ Cause ______

RECD PROGRESS REPORT
JB

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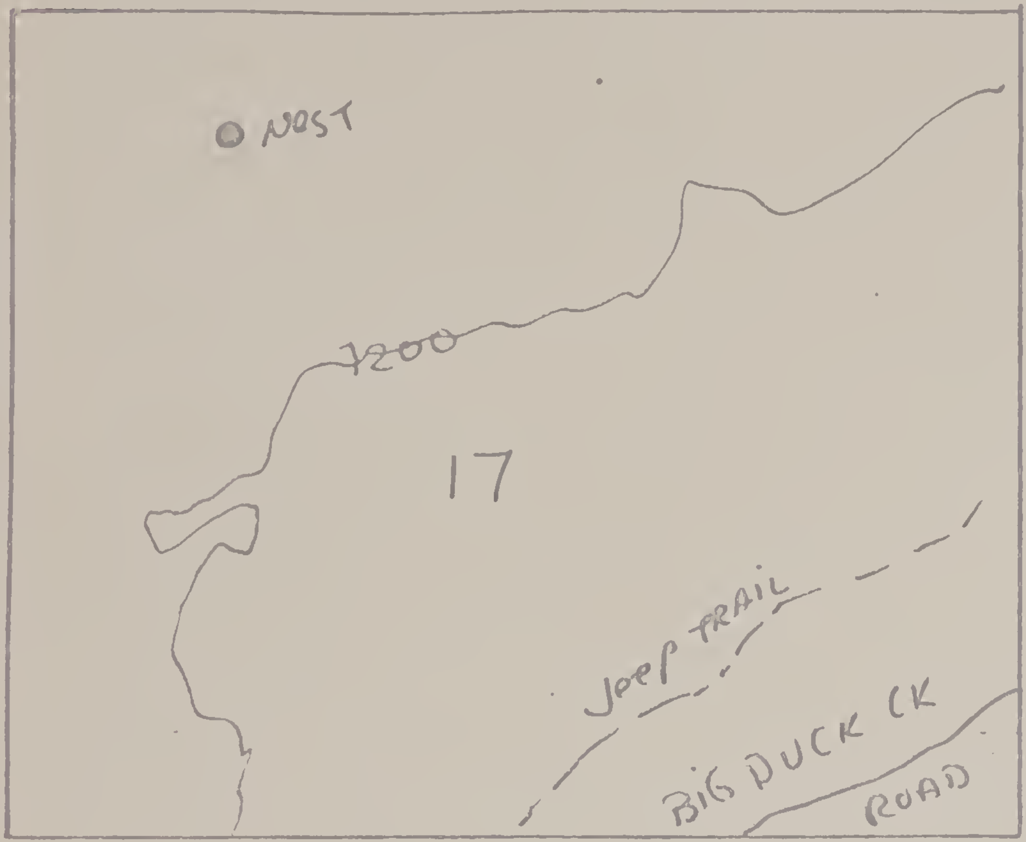
83.C.9.4.2.2.1-16

AVIAN NESTING RECORD

Species Great horned owl Site NW 1/4 Sec 17 T1S (R99W) Nest No. 16

Date 4-29-75 Observer D. Van Horn Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:
in pinyon pine
old raptor nest
NORTH Facing slope

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
4-29		2	10-12	days. Pin feathers present

Summary: Clutch size ______ Completed? ______ Date Incubation Started ______

Young Hatched ______ Hatching Date ______

Young Fledged ______ Fledging Date ______

Nest Destroyed? ______ Date ______ Cause ______

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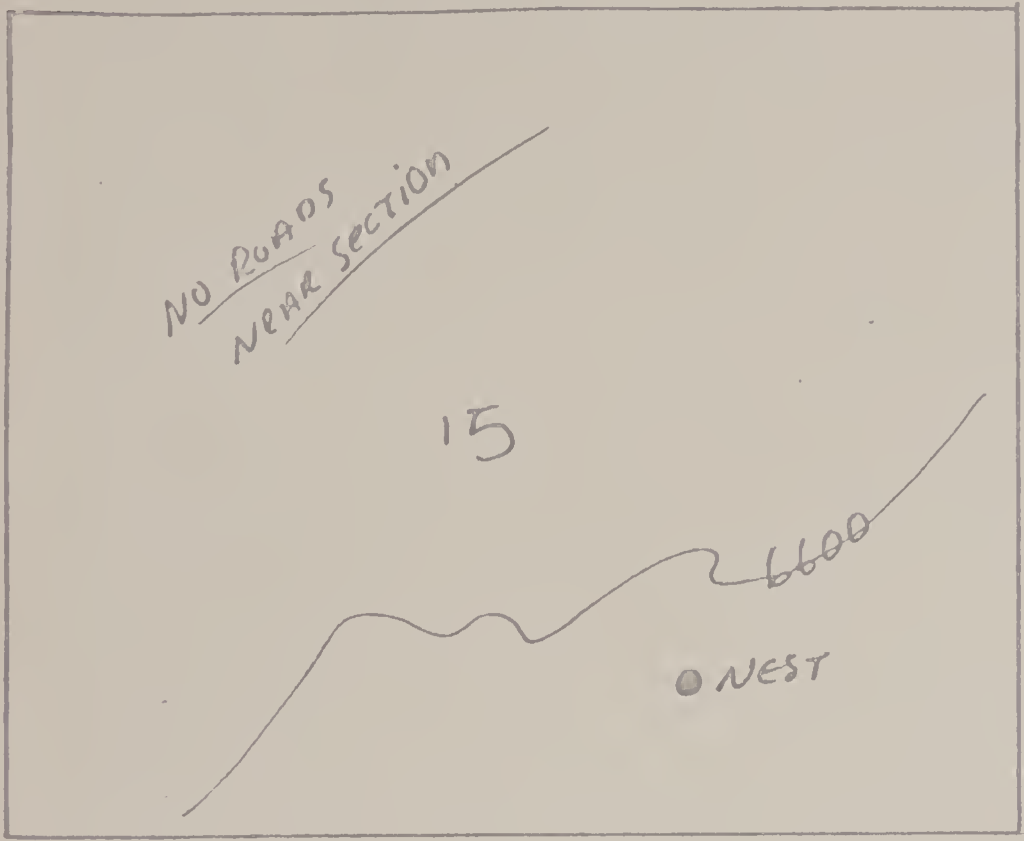
83.C.9.4.2.2.1-17

AVIAN NESTING RECORD

Species Great horned owl Site SE 1/4 Sec 15 T2S R98W Nest No. 17

Date 4-30-75 Observer D. Van Horn Project 83

Nest Location



Nest Type ______

Substrate ______

Rim height (cm) ______

Comments:

NEST OF OTHER RAPTOR
Juniper tree, in mid portion
SOUTH Facing slope

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
30	1	3	2-8	days. egg very stained. youngest owlet only several days old.

Summary: Clutch size ______ Completed? ______ Date Incubation Started ______

Young Hatched ______ Hatching Date ______

Young Fledged ______ Fledging Date ______

Nest Destroyed? ______ Date ______ Cause ______

RBCEP PROGRESS REPORT

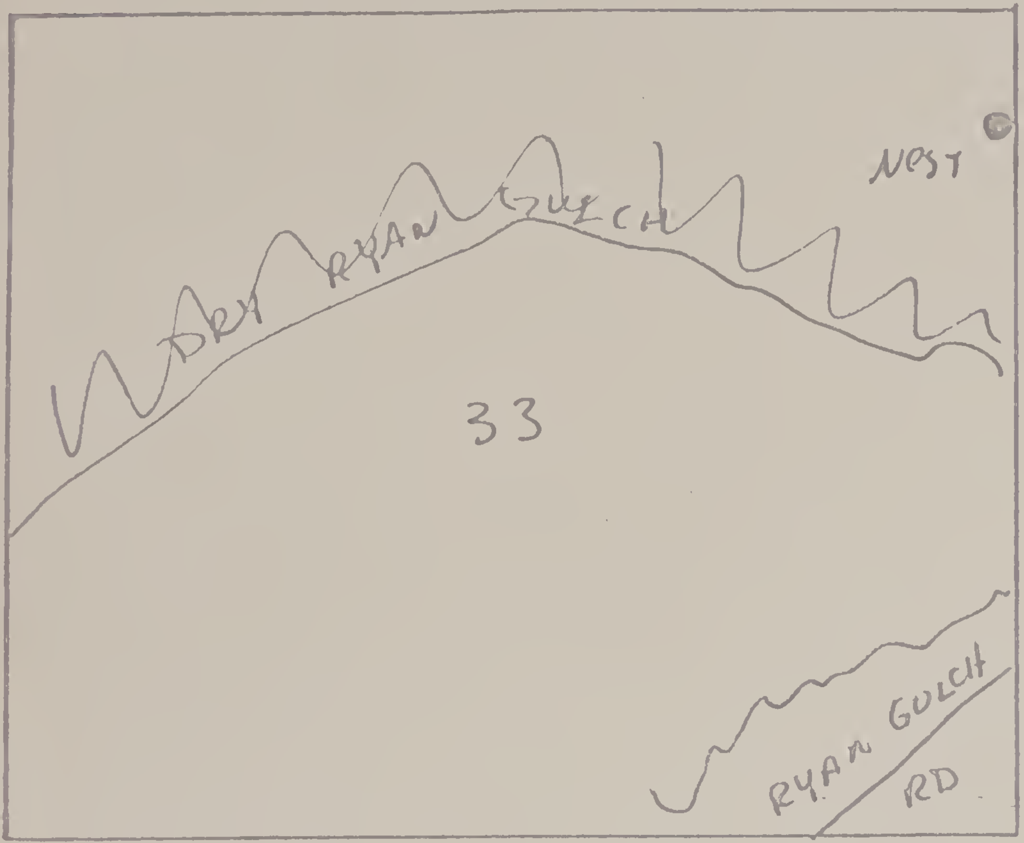
ecology consultants, inc.
83.C.9.4.2.2.1-18

AVIAN NESTING RECORD

Species Common Raven Site NE 1/4 Sec 33 T2S R99W Nest No. 18

Date 4-28-75 Observer D. Van Horn Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

Nest discovered during aerial survey conducted 4-14.

Nest faces east, under deeperos level.

80-90' above ground.

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
28		3	10 days +	one able to stand. Pin feathers present. (examined w/scope)

Summary: Clutch size ____ Completed? ____ Date Incubation Started ____

Young Hatched ____ Hatching Date ____

Young Fledged ____ Fledging Date ____

Nest Destroyed? ____ Date ____ Cause ____

JB

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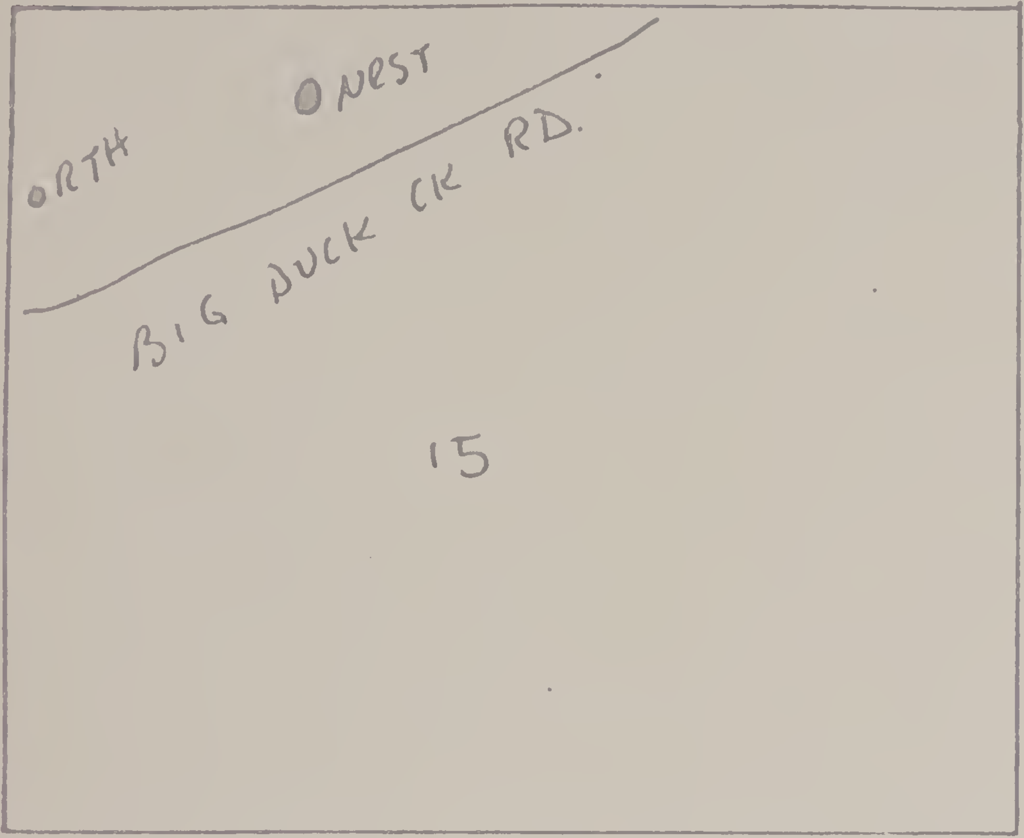
83.C.9.4.2.2.1-19

AVIAN NESTING RECORD

Species Common Raven Site NW 1/4 Sec 15 T1S R99W Nest No. 19

Date 4-29-75 Observer D. Van Horn Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

SOUTH Facing NEST.
In erosion level
60' Above ground

← Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
29		2	6-10	days.

Summary: Clutch size ______ Completed? ______ Date Incubation Started ______

Young Hatched ______ Hatching Date ______

Young Fledged ______ Fledging Date ______

Nest Destroyed? ______ Date ______ Cause ______

RBOSP PROGRESS REPORT
10

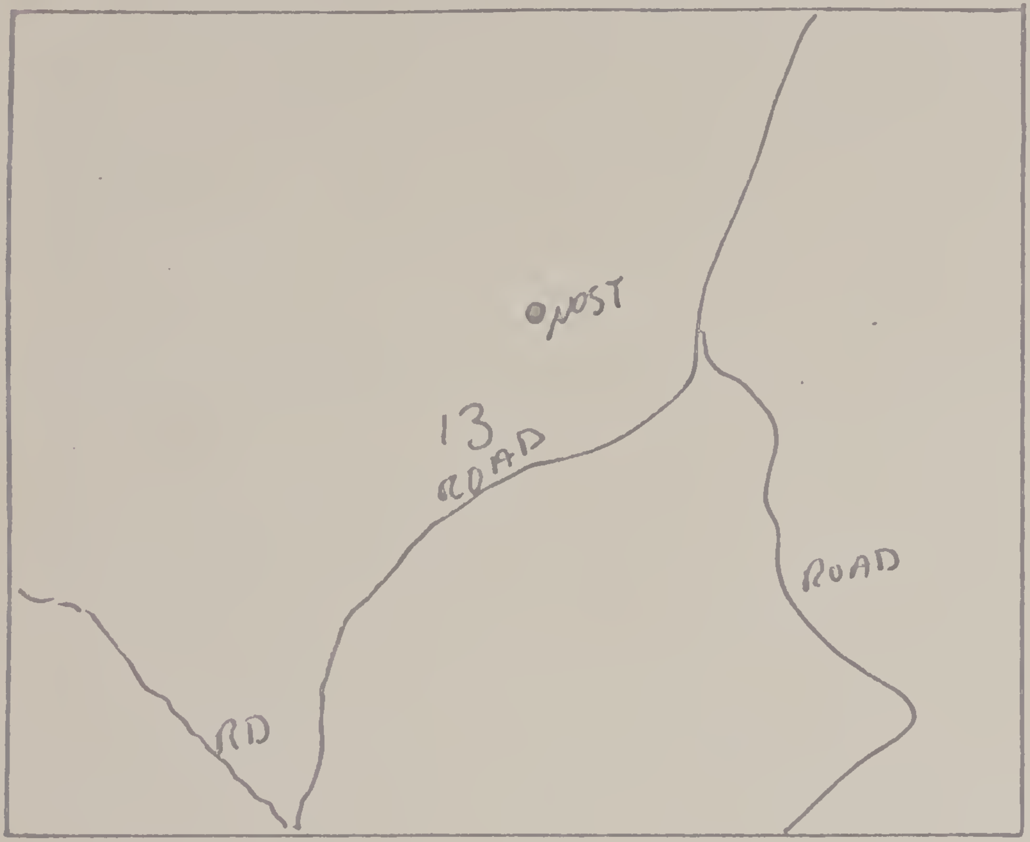
ecology consultants, inc
83.C.9.4.2.2.1-20

AVIAN NESTING RECORD

Species Common Raven Site NW1/4 Sec13 T1S R99W Nest No. 20

Date 4-30-75 Observer Van Horn Project 83

Nest Location



Nest Type

Substrate

Rim height (cm)

Comments:

Juniper tree
old raptor nest
EAST facing slope

⟵ Sketch in nest location relative to identifiable landscape features, grid system, or vegetation pattern.

Date	Eggs	Nestlings	Age	Comments
30		2	6-8	dup.

Summary: Clutch size ____ Completed? ____ Date Incubation Started ____

Young Hatched ____ Hatching Date ____

Young Fledged ____ Fledging Date ____

Nest Destroyed? ____ Date ____ Cause ____

RBCRP PROGLESS REPORT
JB

AERIAL RAPTOR CENSUS REPORT AND SUMMARY FORM

Project/Study 83-04 Date Flown 3-4-75 Survey Area Entire AREA

Observers: R D. VanHorn L C. Kling Pilot/Aircraft L. Paur / Cessna 206

Time: Start 0857 Finish 1200 Est. Ground Speed 75mph Altitude 150' ab. gnd.

Weather: Temperature 30°/40° Wind 0-5 Var. Percent Cloud Cover high, thin; 50%

Air Good Light Good Analyst DVH

RAPTORS OBSERVED DURING AERIAL BIG GAME CENSUS

Species	Number			Location			Notes and Comments
	Adlt.	Imm.	Unkn	Section	Town.	Range	
Common Raven	1			NW1/4 29	1S	99W	Dry fork, soaring over sage
Common Raven	1			NW1/4 20	2S	98W	half way be/ Ryan & Blk. Sulfur
Common Raven	1			30 (mid)	2S	98W	SAGE; S. Ryan Gulch
Golden eagle	1			SW1/4 1	2S	100W	Soaring above grnd. ca. 10 ft.
Golden eagle	1			9	1S	100W	Perched on point.
Common Raven	1			NW1/4 15	2S	99W	Wolf Ridge
Common Raven	1			19	2S	98W	S. of Beigle Ranch
Golden eagle	1			SW1/4 19	1S	99W	Just. N. Big Duck Ck. #4.
Golden Eagle	1			SW1/2 2	1S	100W.	Wet weather Gulch

ECI

AERIAL RAPTOR CENSUS REPORT AND SUMMARY FORM C.9.4.4.1.1.-9

Project/Study 83-66 Date Flown 3-13-75 Survey Area 14 N-S TRANSECTS

Observers: R D. VanHorn L C. Kling Pilot/Aircraft L. Paur | Cessna 206

Time: Start 1325 Finish 1458 Est. Ground Speed 90mph Altitude 150-200

Weather: Temperature 30° Wind 0-5W Percent Cloud Cover 60-100%

Air Fair Light Fair / Poor Analyst Van Horn

Species	Number			Location			Notes and Comments
	Adlt.	Imm.	Unkn	Section	Town.	Range	
Common Raven	1			28	1S	100W	C2TH BLUFFS
Golden Eagle	2			SE1/4 35	1S	100W	RIDGE N. of Dry Fork
Golden Eagle	1			28	1S	99W	HEAD OF Gulley A
Common Raven	15			29	1S	98W	84 Mesa Ranch, cow carcass
Common Raven	3			29	1S	98W	Flying to 84 Mesa ranch
Common Raven	1			21 NE1/4	1S	98W	Yellow Creek

ECI

C 9. 4. 4. 1. 1. -10

AERIAL RAPTOR CENSUS REPORT AND SUMMARY FORM

Project/Study 83/04 Date Flown 3-13-75 Survey Area EAST AND WEST Transect Area

Observers: R C. Kling L D. Van Horn Pilot/Aircraft L. Pauw / Cessna 206

Time: Start 0856 Finish 1046 Est. Ground Speed 75 mph Altitude 150' above grd

Weather: Temperature 20° Wind Var SW Percent Cloud Cover NONE

Air Fair Light FAIR/ poor Analyst D.V.H.

RAPTORS OBSERVED DURING AERIAL BIG GAME CENSUS.

Species	Number			Location			Notes and Comments
	Adlt.	Imm.	Unkn	Section	Town.	Range	
Raven, Common	13			29	T.1S.	98W	feeding on carcass at 84 mesa
Golden eagle	1			1	2S	100W	SOARING, SOUTH OF WATER G.
Common Raven	2			29	2S	98W	Near MET TOWER
Common Raven	1			29	1S	98W	1/4 mi. N. of Corral gulch
Common Raven	1			26	2S	99W	Dry Ryan Gulch, BOTTOM

ECI

C.9.4.4.1.1.-11

AERIAL RAPTOR CENSUS REPORT AND SUMMARY FORM

Project/Study 83/06 Date Flown 4/3/75 Survey Area Canyon Transects

Observers: R Kling L Van Horn Pilot/Aircraft L. Parr / Cessna 206

Time: Start 1230 Finish 1345 Est. Ground Speed 80-90 mph Altitude 175-200'

Weather: Temperature 20° Wind 0-5 fm W Percent Cloud Cover high thin, 10%

Air fair to good Light good Analyst DJH

Species	Number			Location			Notes and Comments
	Adlt.	Imm.	Unkn	Section	Town.	Range	
Common Raven	1			8	1S	98W	
Red-tailed hawk	1			19	2S	98W	
Peregrine falcon	1			1	2S	99W	gray back, black-dark head, dorsal tail feathers → dark, swift wing beats, deep down stroke, short up stroke, flying low across grove

DB

83.C.4.1...

AERIAL RAPTOR CENSUS REPORT AND SUMMARY FORM

Project/Study 83 Date Flown 4-14-75 Survey Area N-S transects

Observers: R C. Kling L D. Van Horn Pilot/Aircraft C206/ Len Paur

Time: Start 0722 Finish 1038 Est. Ground Speed ~~85~~ ~~90~~ 75-80 mph Altitude 175-200'

Weather: Temperature 37/36°F Wind - Percent Cloud Cover high, hazy

Air fair Light good Analyst D. Van Horn

✓ = 1 Bird RAPTORS OBSERVED DURING BIG GAME AERIAL N-S TRANSECTS

Species	Number			Location			Notes and Comments
	Adlt.	Imm.	Unkn.	Section	Town.	Range	
Golden Eagle	✓✓			25	1S	100W	Pair
Common Raven	✓			15	1S	99W	
Common Raven	✓			20	1S	98W	Flying towards 84 ranch
Common Raven	✓			30	2S	98W	
Common Raven	✓✓			24	2S	99W	Nest site
Marsh Hawk	✓			14	2S	100W	male
Cooper's hawk	✓			28	1S	99W	

JB

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REOSP PROGRESS REPORT
JB

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83.C.9.4.2.2.2-3

OWL NIGHT COUNT - FIELD DATA SHEET

Project 83

Count Location As w/ PROPOSAL

Date April 26-27, 1975

Sky Condition 100% OC

Observer VANHORN

Time Start 2015 Time Finish 0230

Temp Start 2°C Temp Finish -4°C

Wind Start 0-5 VAR. Wind Finish 0-5VAR
(~~Beaufort Scale~~)

WIND GUST TO 20MPH. BUT STEADY AT 5MPH. SNOW FLURRIES THROUGH OUT TRANSECT. FAIR HEARING CONDITIONS.

Route Description:
AS w/ PROPOSAL - ENTIRE ROUTE

	Stop Number																														
Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Tota
GREAT H. OWL	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1

BOSP PROGRESS REPORT
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83.C.9.4.2.2.2-4

FIELD DATA SHEET - STRIGIFORMES NIGHT COUNT

Project 83 | Observer DVH

Count Location Owl Transect Route | Time Start 2030 | Time Finish 0430

Date 4-28-75 / 4-29-75 | Temp Start -2°C | Temp Finish -7°C

Sky Condition 100% OC (entire route | Wind Start 5-10 W | Wind Finish 5-10 W
(Beaufort Scale)

Route Description:

NO OWLS HEARD OR OBSERVED

Stop Number

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total

SPECIES ACCOUNT
QUALITATIVE AVIAN RECORD

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83.C.9.5.[illegible]-13

Date 4/15/75 Observer VAN HORN Project 83/05

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
AMERICAN KESTREL	APPROX. 1.5 MI. S. 84 RANCH	1 ♂			LOW 6°C	0-25
AMERICAN KESTREL	84 MESA RANCH, 84 MESA	1 ♂, PAIR (NEST)			HIGH 19°C	W/ GUSTS
BLACK-BILLED MAGPIE	84 MESA RANCH, STAKE SPRINGS					TO 30 MPH
	RYAN GULCH, HUNK RIDGE	—				
WESTERN MEADOWLARK	84 MESA RANCH					
TREE SPARROW	STAKE SPRINGS DRAW					
PINYON JAY	84 MESA P-J EDGE					
COOPER'S HAWK	84 MESA	1 ♀				
MOUNTAIN BLUEBIRD	EVERYWHERE					
MARSH HAWK	84 MESA + YELLOW CK	1 ♂				
RED-WINGED BLACKBIRD	STAKE SPRINGS + RYAN GULCH					
DARK-EYED (OREGON) JUNCO	EVERY WHERE					
DARK-EYED (SLATE COLORED)	JUNCO EVERYWHERE					
GRAY-HEADED JUNCO	"SAME"					
COMMON (RED-SHAFTED) FLICKER	HEARD AND OBSERVED ON NUMEROUS OCCASSIONS					
MALLARD	STAKE SPRINGS DRAW	4				
GREEN-WINGED TEAL	SAME	3				
WATER PIPIT	SAME					
STARLING	STAKE SPRINGS + RYAN GULCH					
WESTERN WOOD PEWEE	STAKE SPRINGS DRAW	1				
KILL DEER	SAME	4				
SCRUB JAY	CORRAL GULCH (NEST)	2				
RED-TAILED HAWK	STAKE-SPRINGS DRAW	1				
CLARK'S NUTCRACKER	"SAME"					
COMMON SNIPE	RYAN GULCH	2				
COMMON RAVEN	STAKE SPRINGS DRAW	4				
GOLDEN EAGLE	YELLOW GULCH	1 IMMATURE				

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83.C.9.5.2 -14

QUALITATIVE AVIAN RECORD

Date 4/15/75 Observer VAN HORN Project 83-05

Species	Location and Habitat Type		Number	Time	Sky	Temperature	Wind
	RYAN GULCH, SAGEBRUSH						
DARK-EYED JUNCO (OREGON)			16	1330	100%	17°C	10-15
D-E. JUNCO (SLATE COLORED)			10				
GRAY HEADED JUNCO			26				
MOUNTAIN BLUEBIRD			13				
	REIGLE RANCH, RYAN GULCH			1430	~~[illegible]~~		
	CREEK BOTTOM, PASTURE				100%	17°C	10-15
GRAY-HEADED JUNCO			18				
RED-WINGED BLACKBIRD			127				
STARLING			7				
COMMON SNIPE			2				
COOPER'S HAWK			1 ♀				
	PINYON JUNIPER, CATH RD.		~~[illegible]~~	1700	100%	18°C	10-15
SCRUB JAY			2				

MB.

SPECIES ACCOUNT
QUALITATIVE AVIAN RECORD

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83.C.5.2-15

Date 4/16/75 Observer VAN HORN Project 83/05

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
COMMON FLICKER	RYAN GULCH, STAKE SPRINGS,		0720	30%	10°C	5-10
✓	YELLOW CREEK					
WESTERN MEADOWLARK	CORRAL GULCH					
✓ SAGE THRASHER	STAKE SPRINGS & CORRAL					
COMMON RAVEN	RYAN, YELLOW CK, CORRAL					
TREE SPARROW	STAKE SPRINGS					
AMERICAN ROBIN	ALL OVER					
RED-WINGED BLACKBIRD	CORRAL & YELLOW CK					
WESTERN WOOD PEWEE	YELLOW CK & CORRAL					
MOUNTAIN BLUEBIRD	EVERYWHERE					
COMMON SNIPE	YELLOW CK					
AMERICAN KESTREL	84 MESA RANCH	1 ♂				
RED-TAILED HAWK	CORRAL GULCH	1				
GRAY-HEADED JUNCO	EVERYWHERE					
DARK-EYED (OREGON & SLATE COLORED) JUNCO	ALL OVER					
RUFOUS-SIDED TOWHEE	CORRAL GULCH					
PINYON JAY	CORRAL GULCH					
SCRUB JAY	CORRAL GULCH					
– BARN SWALLOW	84 MESA	1				
MARSH HAWK	PAIR IN YELLOW CREEK	2				
MALLARD	STAKE SPRINGS DRAW	5				
GOLDEN EAGLE	IMM. YELLOW CREEK	1				

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83.C.[illegible].5.2-16

QUALITATIVE AVIAN RECORD

Date APRIL 16, 1975 Observer VAN HORN Project 83-05

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
	SAGE - P.J. NORTH FACING SLOPE					
DARK-EYED (OREGON) JUNCO		7	1125	10%	16°CENT.	10-15
COMMON RAVEN		1				
WESTERN WOOD PEWEE		2				
	RABBIT/GREASEWOOD/SAGE					
MOUNTAIN BLUEBIRD		7	1420	20%	16°C	15-20
	CORRAL GULCH CK. BOTTOM		1510	20%	15°C	15-20
WESTERN WOOD PEWEE		2				
KILLDEER		4				
RED-WINGED BLACKBIRD		3				
			2000	50%	11°	15-20
	STAKE SPRINGS POND					
MALLARD		5				
AMERICAN ROBIN		1				
RED-WINGED BLACKBIRD		6				

SPECIES ACCOUNT 1 OF 2

QUALITATIVE AVIAN RECORD

Date 4-17-75 Observer Van Horn Project 83|05

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
MALLARD	STAKE SPRINGS IMPOUNDMENT	6	0610	100%	-3°C	5-10
GRAY-HEADED JUNCO	CATH RIDGE / P.J. AREAS					
MTN BLUEBIRD	CATH RIDGE / ALL OVER					
RED BREASTED NUTHATCH	DOUG FIR					
MOUNTAIN CHICKADEE	DOUG FIR ASPEN					
STELLER'S JAY	DOUGLAS FIR					
BLACK-CAPPED CHICKADEE	DOUGLAS FIR - ASPEN					
COMMON FLICKER (RED-SHAFT)	ASPEN					
DOWNY WOODPECKER	ASPEN					
DARK-EYED (OREGON) JUNCO	ASPEN					
HORNED LARK	CATH RIDGE (SEVERAL)					
SAGE GROUSE	SEC 12 SE1/4 T2S R100W	4	AM IN SAGE			
SANDHILL CRANES	BIG DUCK CREEK (DVH)	7				
SANDHILL CRANES						
COOPER'S HAWK	NEAR HUNTING CLUB PJ	1 JUV				
COMMON RAVEN	PAIR OBSERVED ON CATH R.	2.				
RED-TAILED HAWK	ABOVE SAGEBRUSH HILL					
KILLDEER	CORAL Gulch					
TREE SPARROW						
CHIPPING SPARROW						
SAY'S PHOEBE						
WESTERN WOODPEWEE						
COMMON SNIPE						
RED-WINGED BLACKBIRD						

RUSSP PROGRESS REPORT

SPECIES COUNT 2 OF 2

QUALITATIVE AVIAN RECORD

Date 4-17-75 Observer Van Horn Project 83/05

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
VESPER'S SPARROW	Correal Gulch					
WHITE-FACED IBIS	|					
AMERICAN KESTREL	HUNK RIDGE (NEST)	2				

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QUALITATIVE AVIAN RECORD

Date 4-17-75 Observer Von Horn Project 83|05

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
	Corral Gulch - Sage bordered					
	by creek + pasture					
			1645	80% oc	9°C	10-15 W
KILLDEER		6	1			
TREE SPARROW		3				
VESPER'S SPARROW		6				
SAY'S PHOEBE		1				
WESTERN WOOD PEWEE		1				
RED-WINGED BLACKBIRD		3				
WHITE FACED IBIS		1				
MOUNTAIN BLUEBIRD		5				
COMMON SNIPE		2				
CHIPPING SPARROW		1				

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83.C.4.5.2-20

QUALITATIVE AVIAN RECORD

Date APRIL 26, 1975 Observer VAN HORN Project 83

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
	SPECIES ACCOUNT					
SAGEGROUSE	2 STRUTTING GROUNDS	33	AM	100% oc	0°C	5-10 VAR
AMERICAN KESTREL	ONE NW OF TRACT. ONE DUCK CK	2	AM/PM			
CHIPPING SPARROW	SEVERAL LARGE FLOCKS		PM	80% oc	4°C	5-10 VAR
COMMON RAVEN	Pair in Big Duck; ONE 84 Ranch	3				
MOUNTAIN BLUEBIRD	ALL OVER					
RED-TAILED HAWK	ONE IN LITTLE DUCK CK	1				
BLACK-BILLED MAGPIE	IN SEVERAL AREAS					
GRAY-HEADED JUNCO	LITTLE DUCK CREEK					
DARK-EYED JUNCO (OREGON)	same					
SAY'S PHOEBE	LITTLE DUCK CREEK	1				
PINYON JAYS	BIG DUCK & 84 MESA					
WHITE-FACED IBIS	LITTLE DUCK CREEK	1				
LOGGERHEAD SHRIKE	DUCK CREEK	1				
COOPER'S HAWK	BIG DUCK CREEK	1 ♀				
COMMON FLICKER	84 MESA					
VESPER'S SPARROW	84 MESA & W/ CHIPPING SPAR.					
SAND HILL CRANE	Little Duck Creek & 84 [illegible]	13/29	PM			
RED-TAILED HAWK	HUNK RIDGE - SAGE (NEST)	2	PM			
GREAT-HORNED OWL	OWL TRANSECT	1	PM	100%	-2°C	

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83.C.9.5.2-21

QUALITATIVE AVIAN RECORD

Date 4-27-75 Observer VAN HORN Project 83

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
	SPECIES ACCOUNT					
COMMON RAVEN	BLACK SULFUR	1	PM	100% OC	-3°C (SNOW)	5-10
RED-WINGED BLACKBIRD	NUMEROUS IN VALLEY FLOOR					
	OF BLACK SULFUR		PM			
MALLARD	PAIR FLUSHED IN BLACK SUL.	2				
GRAY-HEADED JUNCO	THROUGHOUT SAGE IN BLK. SUL.					
SANDHILL CRANE	84 MESA	19	PM			
GREAT HORNED OWL	~~[illegible]~~ SWITZER GUL.	1				
GREAT HORNED OWL	SWITZER GULCH (NEST)	1				

QUALITATIVE AVIAN RECORD

Date 4-28-75 Observer VAN HORN 1 OF 2 Project 83

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
	SPECIES ACCOUNT					
BLACK-BILLED MAGPIE	E. OF RYAN SCHOOL	4				
Golden EAGLE	RYAN GULCH	1				
RED-WINGED BLACKBIRD	RYAN GULCH & STAKE SPRINGS					
COMMON SNIPE	RYAN GULCH					
KILL DEER	RYAN GULCH & STAKE SPRINGS					
MTN BLUEBIRDS	EVERY WHERE					
COMMON FLICKER (RS)	PAIR IN RYAN GULCH & S.SP.	4				
COMMON RAVEN	RYAN GULCH	5				
BLACK BILLED MAGPIE	RYAN GULCH, W. OF REA. RANCH	10				
SCRUB JAY	RYAN GULCH					
BLUE-GRAY GNATCATCHER	RYAN GULCH	SEVERAL				
SAY'S PHOEBE	RYAN GULCH					
PINYON JAY	RYAN GULCH					
SAGE THRASHER	RYAN GULCH	COMMON				
MALLARD	W. OF REAGLE Rch. RYAN Gul.	2				
GREEN-WINGED TEAL	STAKE SPRINGS POND	5	PM	100% OC	-4°C SNOWING	5-10 W/ 20 gu
* BLUE-WINGED TEAL		6				
MALLARD		13				
* WILSON'S PHALAROPE		3				
* GREAT-BLUE HERON		1				
COMMON RAVEN		4				
MARSH HAWK		1 ♀				
AM. ROBIN						

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QUALITATIVE AVIAN RECORD

Date 4-28-75   Observer VanHorn 2 of 2   Project 83

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
Lesser Yellowlegs	Stake Springs Pond	6				
Barn Swallow						
Rough-winged Swallow						
Tree Swallow						
Song Sparrow						
Black Billed Magpie		3				
Scrub Jay						
Gray-headed Junco						
Starling						
Red-tailed Hawk	Stake Springs Draw	1				
American Kestrel		1				
Sandhill Crane	84 Mesa	21	PM			
Common Raven	Galloway Gulch	2				
Red-tailed Hawk	Stake-Springs Draw	1				
Common Raven	Dry Ryan Gulch (Nest)	2				
Great-horned Owl	Ryan Gulch (Nest)	2				
Great-horned Owl	Galloway Gulch (Nest)	2				

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83.C.9.5.2-24

QUALITATIVE AVIAN RECORD

Date 4-20-75 Observer VAN HORN 1 OF 2 Project 83

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
	SPECIES ACCOUNT					
BLUE-GRAY GNATCATCHER	SAGEBRUSH AREAS					
AMERICAN KESTREL	DUCK CREEK ♂	1				
VESPER'S SPARROW	SAGE AREAS					
MOUNTAIN BLUE BIRD	DUCK CREEK					
AM. ROBIN	DUCK CREEK					
WHITE-BREASTED NUTHATCH	BIG DUCK CRK. P.J.					
RAVEN, COMMON	BIG DUCK (NEST)	2				
BLACK-BILLED MAGPIE	BIG DUCK					
RED-TAILED HAWK	PAIR NEST BIG DUCK CK.	2				
AM. KESTREL	DUCK CK ♀	1				
MARSH HAWK	DUCK CK ♀	1				
COMMON FLICKER	YELLOW CK					
MARSH HAWK	YELLOW CK ♂	1				
AM. KESTREL	PAIR	2				
PINYON JAY						
GREAT HORNED OWL	NEST (PAIR)	2				
MAGPIE, BB						
"EASTERN PHOEBE (?)"	IMM. PHOTOGRAPHED, BEHAV.	1				
	TYPICAL OF PHOEBE (EAST)					
	JUV. PLUMAGE. YELLOW CK.					
LOGGERHEAD SHRIKE	84 MESA RANCH	1				
KILLDEER	84 MESA RANCH	2				

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83.C.?.5.2-25

QUALITATIVE AVIAN RECORD

Date 4-29-85 Observer Van Horn Project 83

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
MOURNING DOVE	84 MESA RANCH					
AM. KESTREL	84 MESA RANCH ♂	1				
GREAT-HORNED OWL (NEST)	BETWEEN LITTLE + BIG DUCK	2				
RED-TAILED HAWK	YELLOW CREEK	2				
SANDHILL CRANE	84 MESA, Little Duck CK.	27 | 7				

QUALITATIVE AVIAN RECORD

Date 4-30-75 (WED) Observer DVH 1 OF 2 Project 83

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
	SPECIES ACCOUNT					
MOURNING DOVES	84 Mesa Ranch		AM	OC	2°C	5-10 W
Virginia's WARBLER	CORRAL Gulch Creek					
Yellow Rumped Warbler						
Wilson's Phalarope		2				
R.W. Blackbird						
Loggerhead shrike		1				
SONG Sparrow						
Common snipe						
Blue-GRAY GNATCATCHER						
BREWER'S SPARROW	GRID A (SMALL MAM. PLOT					
LOGGERHEAD SHRIKE		1				
Golden eagle		1				
Vesper's sparrow						
Mountain BlueBIRD						
BLACK BILLED MAGPIE						
COMMON FLICKER						
GRAY-HEADED JUNCO						
RED-TAILED HAWK	SOUTH-SLOPE PJ GRID	2				
GREEN-TAILED TOWHEE	SAGE GRID D					
AMERICAN KESTREL	CATH RIDGE	2				
COMMON FLICKER						
MOUNTAIN BLUEBIRD						
[illegible]						

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83.C.9.5.2-27

QUALITATIVE AVIAN RECORD

Date 4-30-75 Observer VAn Horn 2 OF 2 Project 83

Species	Location and Habitat Type	Number	Time	Sky	Temperature	Wind
WILSON'S PHALAROPE	STAKE SPRINGS DRAW		PM			
YELLOW RUMPED WAR.	POND					
ORANGE-CROWNED WAR.						
R.W. BLACKBIRD						
COMMON RAVEN		3				
GREAT-BLUE HERON						
SAY'S PHOEBE						
SPOTTED SANDPIPER						
WHITE-CROWNED SPARROW						
RED-TAILED HAWK		2				
PINE SISKIN						
MALLARD		3				
BLUE-WINGED TEAL		5				
GREEN-WINGED TEAL		4				
SONG SPARROW						
BB MAGPIE						
SCRUB JAY						
LESSER YELLOWLEGS						
VESPER'S SPARROW						
GREEN-TAILED TOWHEE						
BLUE-GRAY GNATCATCHER						
SANDHILL CRANES	84 mesa	17				
SCRUB JAY	SOUTH SLOPE PJ (Emlen	3				
PINYON JAY	(Emlen)	14				

2.3.8--Reptiles and Amphibians

2.3.8 Reptiles and Amphibians

2.3.8.1 Introduction

No change has occurred since Progress Report-2. See section 3.10.1 in Progress Report-2 for the introduction to the reptile and amphibian section.

2.3.8.2 Methods

No change has occurred since Progress Report-2. See section 3.10.2.2 in Progress Report-2 for specific methods used in reptile and amphibian studies.

2.3.8.3 Results

Line transect census data for reptiles and amphibians were not gathered during the reporting quarter March through May, 1975.

2.3.8.3.1 Amphibian Breeding Site Visits

Potential amphibian breeding sites in four different locations were visited on two different nights in mid-May. One individual of each of the three different species encountered was collected and prepared as a voucher specimen. The three species collected were the tiger salamander (Ambystoma tigrinum), both adult and larva, the chorus frog (Pseudacris triseriata), and the spadefoot toad (Scaphiopus sp.).

2.3.8.4 HERPETOFAUNA RAW DATA

C.10.1.2 - 1

~~REPTILE AND~~ AMPHIBIAN COLLECTION SHEET

Project #: 83

Date	No.	Species	Sex	Age Class	Capture Location	Habitat Description	~~Collector~~	Additional Notes *
5/17/75	1	Scaphiopus sp.	♂	A	200 yds above pond in Stakes Spr.	stream	WTT, JB	voucher
"	2	Ambystoma tigrinium	?	larvae	Stakes Springs pond	pond	WTT JB	"
"	3	A. tigrinium	?	Ad. ↓ recently metamorphosed	Stakes Springs pond	"	WTT JB	"
"	4	Pseudacris triseriata	♂	Ad	pond in Corral Gulch above 84 ranch	pond	JB WTT	several calling
5/25	No collections made – only Pseudacris triseriata heard calling – at Corral Gulch pond. Nothing heard calling at Stakes spring. JB, GAR							

*Reproductive condition, stomach contents, tail loss, etc.

* several calling

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2.3.9 Invertebrates

2.3.9.1 Introduction

No change has occurred since Progress Report-2. See section 3.11.1 in Progress Report-2 for the introduction to the invertebrate section.

2.3.9.2 Methods

No change has occurred since Progress Report-2. See section 3.11.2 in Progress Report-2 for specific methods used in the invertebrate studies.

2.3.9.3 Results

Invertebrate data were not gathered during the reporting quarter March through May, 1975.

2.3.10--Domestic Livestock

2.3.10 Domestic Livestock

2.3.10.1 Introduction

No change has occurred since Progress Report-2. See section 3.12.1 in Progress Report-2 for the introduction to the domestic livestock section.

2.3.10.2 Methods

No change has occurred since Progress Report-2. See section 3.12.2 in Progress Report-2 for specific methods used in domestic livestock studies.

2.3.10.3 Results

Aerial surveys of domestic livestock were conducted in conjunction with the elk and feral horse counts on March 4 and April 14, 1975. Totals of 56 and 63 cattle were observed on the aerial surveys conducted on March 4 and April 14 respectively. During both surveys, the cattle were concentrated in feeding and calving areas in Ryan Gulch, Black Sulfur Creek and Little Duck Creek (Figure 2.3-11).

2.3.10.4 DOMESTIC LIVESTOCK RAW DATA

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM (1 of 2)

roj/Study 83/62 Date Flown 11/04/74 Species Domestic Livestock Survey Area Rio Blanco Study Area

bservers: R C Kling L D VanHorn Pilot/Aircraft Les Pam / Cessna Skylane 182

tart 0649 Finish 1001 Est. ground speed & alt. 75 @ 200

ounting conditions: Ground cover poor Light Fair Air Fair good

eather: Temp. 30 Wind calm Cloud cover variable Analyst CCK

bservations				Location	Notes and Comments
	♀	JUV	U		
			10	NE corner of tract	
			2	" " " " "	
			6	NE corner of tract	
			1	Sec 34 Tract	
			3	off tract Corral Gulch	
			2	Boxelder	
			2	N of Duckett Ranch	
			3		
			37	Wagonroad ridge gully S. before Ryan	
			8	above Black Sulfur	
			13	in Black Sulfur	
			9	above Black Sulfur	
			4	bottom of Ryan Gulch	
			18	~~above~~ south Duck Creek	
			2	south Duck Creek	
			2	Corral Gulch	
			11	near road from 84 ranch	
			11	Near Duck Creek	
			23	between Duck Creek + Corral Gulch	
			6	Big Duck West	
			17	Bottom Big Duck	
			30	near bluffs on NE side of study area	
			4	Stake Spring near cabins	
		22?	2	Branches of Boxelder	
			2	Near upland meadow transect	
			4	South end of Ryan Gulch	
			4	NE corner Section 21	

tal Animals Counted:

imal Distribution:

RBOSP PROGRESS REPORT

ECI

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM (12 3 1.-2 2 of 2

roj/Study 83/62 Date Flown 11/08/74 Species Domestic Livestock Survey Area Rio Blanco Study Area

bservers: R ______ L ______ Pilot/Aircraft ______

tart ______ Finish ______ Est. ground speed & alt. ______

ou ng conditions: Ground cover ______ Light ______ Air ______

eather: Temp. ______ Wind ______ Cloud cover ______ Analyst CLK

bservations				Location	Notes and Comments
♂	♀	JUV	U		
			6	NE Section 28	
			37	Black Sulfur Creek	
			5	Black Sulfur	
			1	near Tower	
			6	Start of Black Sulfur	
			6	North end of Black Sulfur	
			3	Section 31	
			6	boothill transect	
			1	bottom of Ryan Gulch	
			1	Section 23	
			3	Section 24	
			6	Section 24	
			4	bottom of Stake Springs	
			5	bottom of Stake Springs	
			1	bottom Water Gulch	
			2	north slope Dark Creek	
			3	Sagebrush Ridge	
			1	Stake Springs	
			333		

otal Animals Counted: 333

nimal Distribution: scattered, concentrate Wagon road ridge.

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM

oj/Study 83/62 Date Flown 12/30/74 Species Domestic Livestock Survey Area Rio Blanco Study Area

servers: R C Kling L D VanHorn Pilot/Aircraft Len Pam / Cessna 182 Skylane

art 0833 Finish 1136 Est. ground speed & alt. 80 mph @ 175' above Ground

un ng conditions: Ground cover Excellent Light Excellent Air Good

ather: Temp. 12° Wind 15 SW Cloud cover Variable Analyst CWK

servations				Location	Notes and Comments
	♀	JUV	U		
			4	Tract C-a Boxelder	
			1	Tract C-a south end	
			3	Bottom of Ryan Gulch	
			5	ranch Black Sulfur	
			24	between yellow Creek & Ryan Gulch	
			5	north of Ryan	
			11	bottom of Black Sulfur Gulch.	
			2	Top of Wagon road ridge	
			12	bottom of Ryan Gulch	
			16	Hunt Ridge near road Ryan to 84	
			8	yellow Creek Bottom	
			32	Bottom of Ryan Gulch	
			2	gully into Ryan Gulch	
			18	bottom of Ryan Gulch	
			28	N of Ryan in breaks	
			3	Wagon road ridge	
			4	Duck Creek	
			3	Ryan Creek	
			5	Tract C-a start of #8	
			3	ridge north of Black Sulfur	
			3	ridge past Black Sulfur	
			14	Bottom of Ryan Gulch	
			2	near sage exclosure	
			5	bottom of Yellow Creek	
			11	bottom of Ryan Gulch	
			3	near Black Sulfur	
			4	near Black Sulfur	

tal Animals Counted:

imal Distribution:

[illegible]OSP PROGRESS REPORT

ECI

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM C 12 3 i 4 2 of 2

roj/Study 83/62 Date Flown 12/30/74 Species Domestic Livestock Survey Area Rio Blanco Study Area

bservers: R L Pilot/Aircraft

tart Finish Est. ground speed & alt.

oun ng conditions: Ground cover Light Air

eather: Temp. Wind Cloud cover Analyst

bservations				Location	Notes and Comments
	♀	JUV	U		
			11	between Ryan + Black Sulfur	
			3	ridge - Ryan Gulch	
			17	south of Yellow Creek	
			6	Section 32	
			6	in bottom land Ryan Gulch	
			26	bottom of Ryan Gulch	
			19	bottom of Ryan Gulch west of Ranch	
			2	before Stake Springs	
			2	NE corner Sec 13	
			2	bottom Ryan Gulch	
			7	between Stake Springs + Ryan	
			3	bottom of Little Duck Creek	
			335		

otal Animals Counted: 335

imal Distribution: Ryan Gulch

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM C.12.3.1.-85

roj/Study 83/62 Date Flown 4 March 75 Species Cattle Survey Area Rio Blanco Study Area

bservers: RF D Vanhorn, LR C Kling Pilot/Aircraft Len Pauer / Cessna 206

tart 0857 Finish 1200 Est. ground speed & alt. 75 mph @ 150' above ground.

ou[illegible]ng conditions: Ground cover poor Light fair Air good

eather: Temp. 30° Wind — Cloud cover high thin Analyst DVH + CLK

bservations				Location	Notes and Comments
	♀	JUV	U		
			52	near Duckett Ranch	in bottoms.
			4	near Duck (Little Duck) Creek	
			56		

otal Animals Counted: 56

imal Distribution: Few animals observed relative to other flights, those spotted were in bottoms.

BIG GAME AERIAL CENSUS REPORT AND DATA SUMMARY FORM 83.C.12.3.1-6

Proj/Study 83/12 Date Flown 4/14/75 Species Cattle Survey Area Rio Blanco Study Area

Observers: R F CL Kling L R D. VonHeco Pilot/Aircraft Lon Paux / Cessna 206

Start 0922 Finish 1038 Est. ground speed & alt. 75-80 mph C. 150 feet above ground

Counting conditions: Ground cover poor Light poor Air fair

Weather: Temp. 37°/30 Wind — Cloud cover high, heavy Analyst CL Kling

Observations ♂	♀	JUV	U	Location	Notes and Comments
	20	18		by Riegle Ranch - calving area	others milling around in Corral
			25	Duck Creek - Calving area	
				east edge of census area Black Sulfur	
	20	18	25		

Total Animals Counted: 63

Animal Distribution: Clumped, calving areas bottoms of gulches where ranchers have them penned.

BROSP PROGRESS REPORT

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2.3.11 Remote Sensing

2.3.11.1 Introduction

No change has occurred since Progress Report-2. See section 3.4.1 in Progress Report-2 for the introduction to the remote sensing section.

2.3.11.2 Methods

No change has occurred since Progress Report-2. See section 3.4.2 in Progress Report-2 for specific methods used in remote sensing studies.

2.3.11.3 Results

Remote sensing data were not gathered during the reporting quarter March through May, 1975.

2.3.12 Threatened and Endangered Species

2.3.12.1 Introduction

No change has occurred since Progress Report-2. See section 3.13.1 in Progress Report-2 for the introduction to the threatened and endangered species section.

2.3.12.2 Methods

No change has occurred since Progress Report-2. See section 3.13.2 in Progress Report-2 for specific methods used in threatened and endangered species studies.

2.3.12.3 Results

Three threatened or endangered avian species were observed in the study area of Tract C-a during the quarter March through May, 1975. The three species are the prairie falcon ("Threatened - U.S. Department of the Interior, Bureau of Sport Fisheries and Wildlife. 1973. Threatened Wildlife of the United States. Res. Publ. 114 Gov. Print. Off., Washington, D.C. 289 p); the peregrine falcon ("Endangered" - U.S. Department of the Interior, Bureau of Sport Fisheries and Wildlife, Endangered Species Act of 1973 - Public Law 93-205; 87 Stat. 884, December 28, 1973; United States List of Endangered Fauna, May, 1974); and the greater sandhill crane ("Undetermined" - Position Statement Concerning Endangered Species unanimously Adopted by the Colorado Wildlife Commission on March 22, 1973) have been observed to date. The greater sandhill crane is considered endangered in Colorado only as a summer nesting resident. Birds migrating through Colorado are not considered endangered in the state. Therefore, status of this species in the vicinity of Tract C-a is, at present, undetermined.

Conversations with residents of the Piceance Basin vicinity revealed that cranes occasionally utilize the basin and other areas to the west during their northward migration. However, the extent to which the greater sandhill crane uses the region for foraging, displaying (dancing) and breeding has not been determined. Other parts of northwestern Colorado serve as important "staging" (display) areas during migration, and portions of the Piceance Basin might be important in this regard. There is preliminary evidence that 84 Mesa near Tract C-a might be used as such a staging area, or might be utilized for nesting. It is known that the cranes utilize sagebrush areas to some extent for nesting (W. Graul, and R.S. Miller - Personal communication).

On April 17, 1975, 30-35 greater sandhill cranes were observed overhead in the vicinity of Little and Big Duck Creeks. During an aerial sagegrouse lek survey over 84 Mesa on April 25, 1975, cranes

were observed in a sagebrush community. From April 25 through April 30, 1975, between 17 and 29 cranes were observed foraging and displaying in an area of sparse sagebrush on 84 Mesa. One flock of 13 birds was observed near Little Duck Creek on April 26. The cranes were foraging above the dry creek in dense sagebrush. These observations indicate that the Tract C-a vicinity was being utilized routinely by this crane during mid-to-late April, 1975. At this time, the intensity of use and the degree of crane attachment to the area are not known. During this same period, greater sandhill cranes were also congregated near Hayden, Colorado close to the Yampa River. Cranes staging near Hayden are known to nest in northwestern Colorado. Cranes congregated on and near 84 Mesa might nest in the area or may continue north on a migration to Idaho, Wyoming or Montana. Additional studies to resolve this question are currently underway.

Two sightings of prairie falcons were recorded during mid-May, 1975 near the southeast corner of Tract C-a. One peregrine falcon was sighted during an aerial raptor survey on April 3, 1975 in section 1, T2S, R99W of the study area.

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